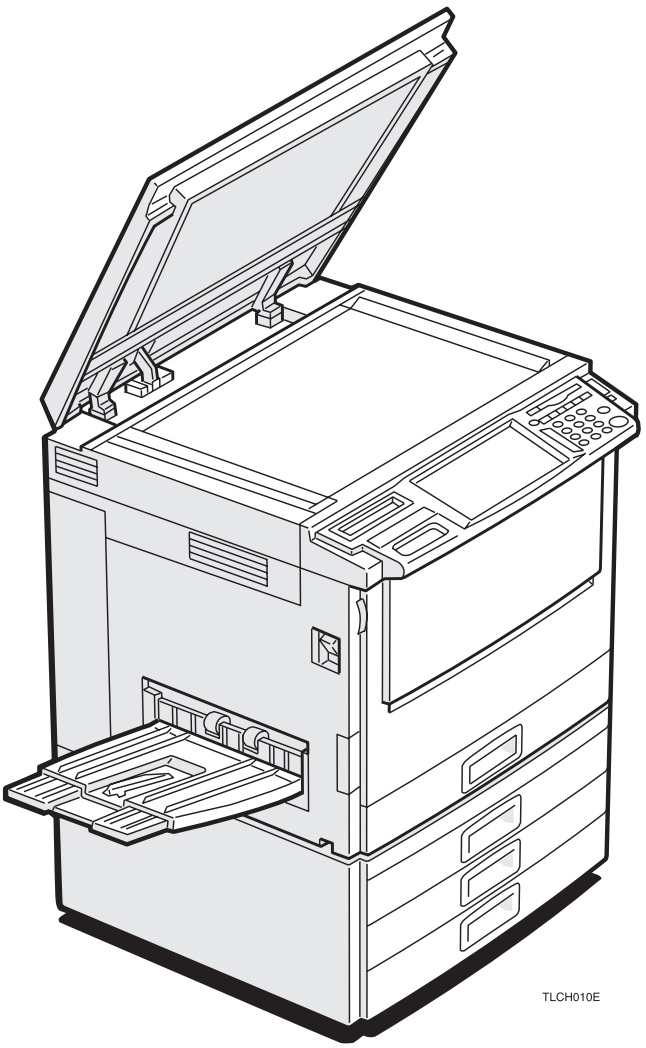
RICOH

Aficio Color™ 4006/4106

Operating Instructions



TLCH010E

Read this manual carefully before you use this product and keep it handy for future reference.
For safety, please follow the instructions in this manual.

Do not make copies of anything which is prohibited from copying by law. The following items are normally prohibited from copying by national law. Other items may be prohibited by local law.

- **Money**
- **Stamps**
- **Bonds**
- **Stocks**
- **Bank drafts**
- **Checks**
- **Passports**
- **Driver's licenses**

The copy samples in this Operating Instructions differ somewhat from actual copies due to printing effects.

The coloring of each Color key may differ somewhat from the actual copies.

This copier has a function that prevents making counterfeit bills. So, if you use an original image that is similar to a bill, you may not get proper copies.

Safety Information

When using your machine, the following safety precautions should always be followed.

Safety during Operation

In this manual, the following important symbols are used:

⚠***WARNING:***	***Ignoring this warning could cause serious injury or even death.***
⚠***CAUTION:***	***Ignoring this caution could cause injury or damage to property.***

Examples of Indications

Symbols ⚠ mean a situation that requires you take care.

Symbols ⚠ mean "Hot surface".

Do NOT carry out the operation represented by this symbol ⃠ .
This example means "Do not take apart".

Symbols ● mean you MUST perform this operation.
This example means "You must remove the wall plug".

⚠ *WARNING:*

- *Only connect the machine to the power source described on the inside front cover of this manual.*
- *Avoid multi-wiring.*
- *Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.*
- *Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.*

- *Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.*

- *Do not remove any covers or screws other than those specified in this manual. Some parts of the machine are at a high voltage and could give you an electric shock. Also, if the machine has laser systems, direct (or indirect) reflected eye contact with the laser beam may cause serious eye damage.When the machine needs to be checked, adjusted, or repaired, contact your service representative.*
- *Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.*

- *If the machine looks damaged or breaks down, smoke is coming out, there is a strange smell or anything looks unusual, immediately turn off the operation and main power switches then unplug the power cord from the wall. Do not continue using the machine in this condition. Contact your service representative.*
- *If metal, liquid or foreign matter falls into the machine, turn off the operation and main power switches, and unplug the main power cord. Contact your service representative. Do not keep using the machine with a fault or defect.*

- *Do not put any metal objects or containers holding water (e.g. vases, flowerpots, glasses) on the machine. If the contents fall inside the machine, a fire or electric shock could occur.*

- *Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of the used toner containers according to local regulations for plastics.*

- *Do not insert your hands between sorter bins when your machine is equipped with the 20-bin sorter stapler. You may be injured.*

⚠ CAUTION:

- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*

- *After you move the machine, fix it with the caster fixture. Otherwise, the machine might move or come down to cause a personal injury.*

- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*

- *When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.*

- *If you use the machine in a confined space, make sure there is a continuous air turnover.*

- *Do not reuse stapled paper. Do not use aluminum foil, carbon-containing paper or other conductive paper. Otherwise, a fire might occur.*

- *When removing misfed paper, do not touch the fusing section because it could be very hot.*

- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

- *Do not eat or swallow toner.*
- *Keep toner (used or unused) and toner containers out of reach of children.*

- *This equipment is only to be installed by a qualified service personnel.*

- *Deliver to collection point for waste products. Do not be disposed of via domestic refuse collection.*

How to Read this Manual

Symbols

In this manual, the following symbols are used:

⚠ ***WARNING:***

This symbol indicates a potentially hazardous situation that might result in death or serious injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

⚠ ***CAUTION:***

This symbol indicates a potentially hazardous situation that might result in minor or moderate injury or property damage that does not involve personal injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

*The statements above are notes for your safety.

Important

If this instruction is not followed, paper might be misfed, originals might be damaged, or data might be lost. Be sure to read this.

Preparation

This symbol indicates the prior knowledge or preparations required before operating.

Note

This symbol indicates precautions for operation, or actions to take after misoperation.

Limitation

This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

Reference

This symbol indicates a reference.

[ ]

Keys that appear on the machine's panel display.

[ ]

Keys built into the machine's operation panel.

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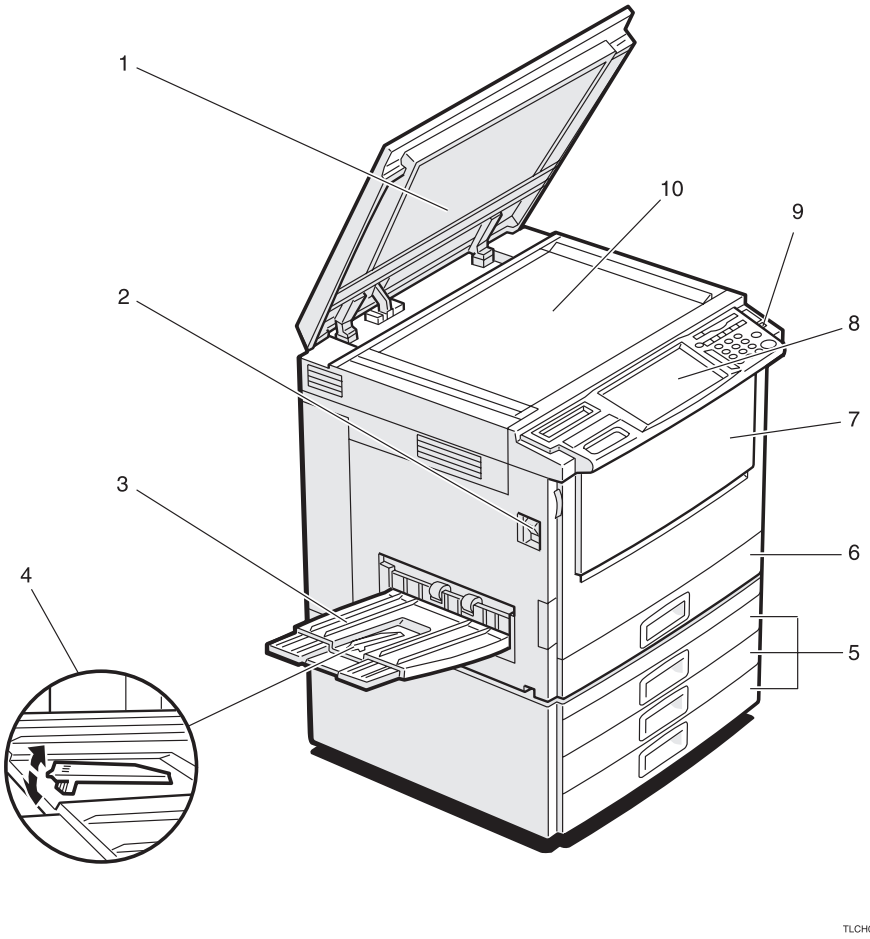
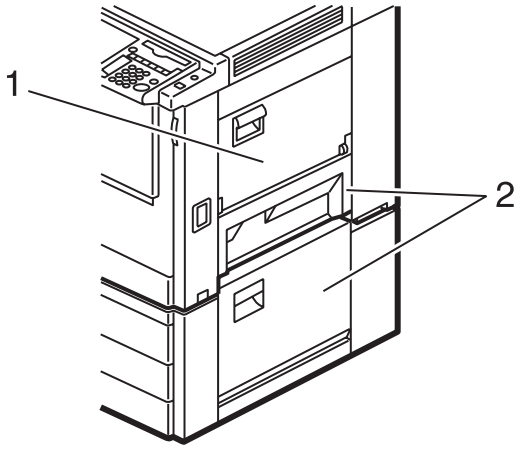
Where it is &
What it is

Machine Exterior



1. Platen cover (option)	Lower this cover over originals placed on the exposure glass (platen glass) for copying.
2. Main power switch	To start the machine, turn on this switch. Note ❑ If the machine does not operate after turning on the operation switch, check if the main power switch is turned on. If it is off, turn it on.
3. Copy tray	Completed copies are delivered here.
4. Stopper	When you copy onto thin paper, raise this to prevent curling.
5. Paper tray	Set paper here. ☛ see page 136.
6. Auto duplex tray	Use to make two-sided copies.
7. Front cover	Open to access the inside of the machine.
8. Operation panel	☛ see page 5.
9. Operation switch	Press this switch to turn the power on (the **On** indicator lights up). To turn the power off, press this switch again (the **On** indicator goes off).
10. Exposure glass (platen glass)	Position originals here face down for copying.



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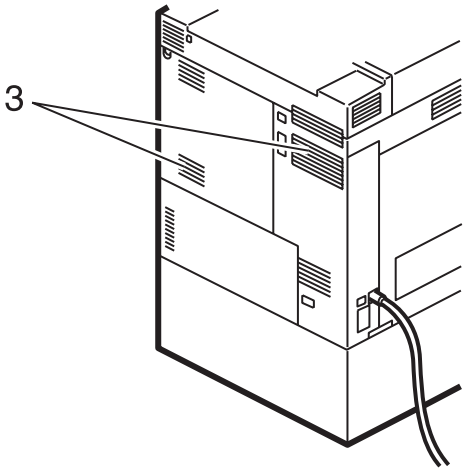

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1. Bypass tray

Use to copy onto OHP transparencies, adhesive labels, translucent paper, post cards, and custom size paper, ☛ see page 44.

2. Right side cover /Lower right cover

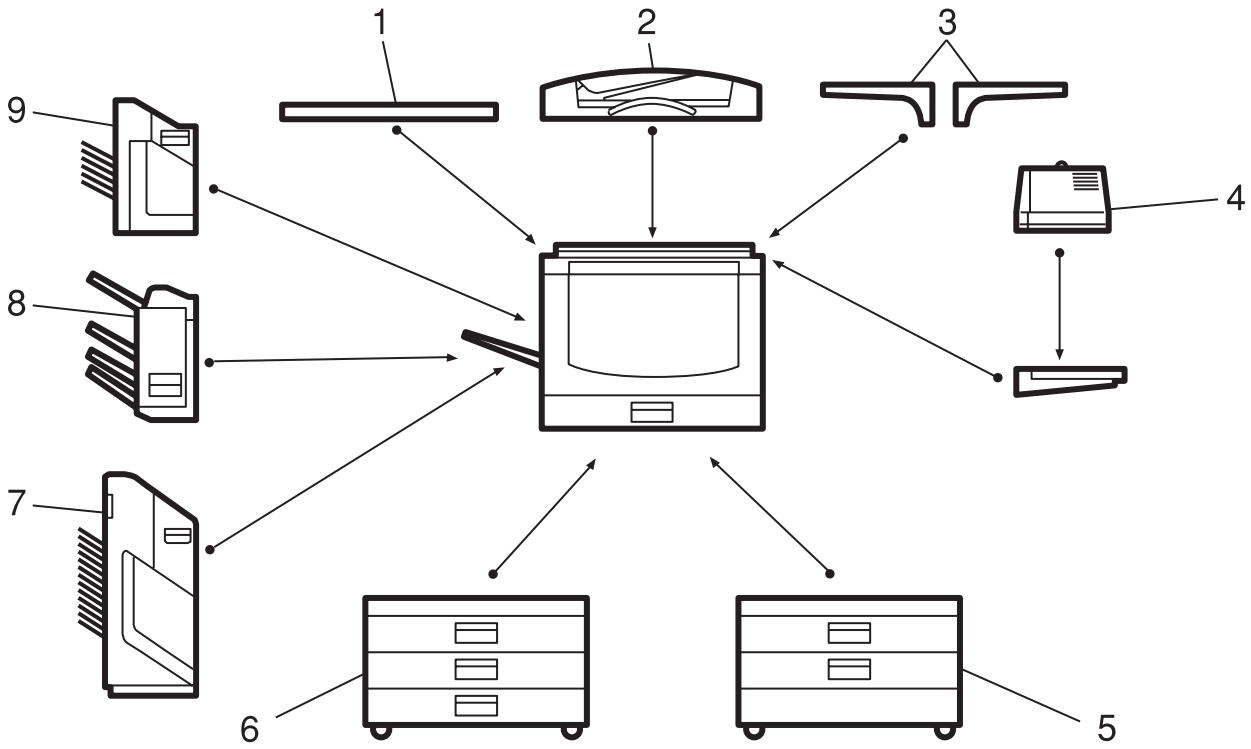
Open this cover to remove jammed paper.

3. Ventilation hole

Prevents overheating. Do not obstruct the ventilation hole by placing or leaning an object near it. If the machine overheats, a fault might occur.

Options

This machine can be provided with the following options:



TLCP010E

1. Platen cover — Lower this cover over originals placed on the exposure glass (platen glass) for copying.

2. Document feeder (ADF) — Insert a stack of originals here. They will be fed automatically.

3. Original tray — Put your originals.

4. Film projector unit — Use to copy films. ☛ see page 171.

Note

❑ The holder is required for installation.

5. 1000-sheet tray unit (two 500-sheet trays) — Consists of two paper trays.

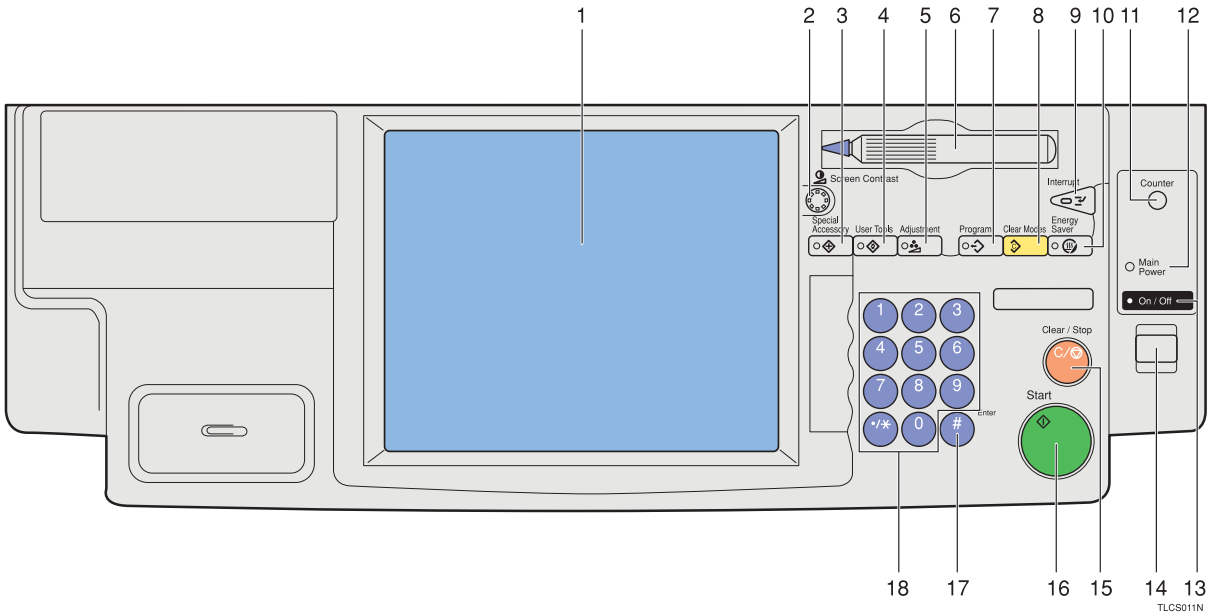
6. 1500-sheet tray unit (three 500-sheet trays) — Consists of three paper trays.

7. 20-bin sorter stapler — Sorts, stacks, and staples copies.

8. 3-bin sorter stapler — Sorts and stacks copies.

9. 10-bin sorter stapler — Sorts, stacks, and staples copies.

Operation Panel



1. Touch panel display

You can see the operation status and messages here.

2. Screen Contrast knob

You can change the brightness of the display.

3. [Special Accessory] key

Press to use the optional film projector unit.
☛ see page 171.

4. [User Tools] key

Press to change the default setting.
☛ see page 151.

5. [Adjustment] key

Press to adjust the image or color balance, or to make user colors.
☛ see page 91.

6. Editor pen

Use to designate areas.

7. [Program] key

Press to select the program mode.
☛ see page 54.

8. [Clear Modes] key

Press to clear the previously entered settings.

9. [Interrupt] key

Press to make interrupt copies.
☛ see page 52.

10. [Energy Saver] key

Press to enter/exit the Energy Saver mode.
☛ see page 52.

11. [Counter] key

Press to display the total number of copies made.

12. Main Power indicator

This indicator lights up when the main power switch is turned on, and goes off when the switch is turned off.

13. On indicator

This indicator lights up when the operation switch is turned on, and goes off when the switch is turned off.

14. Operation switch

Press this switch to turn the power on (the **On** indicator lights up). To turn the power off, press this switch again (the **On** indicator goes off).

15. [Clear/Stop] key

Press to cancel the copy number entered. While copying, press to stop copying. This key is also used to clear data.

16. [Start] key

Press to start copying.

17. [#] key

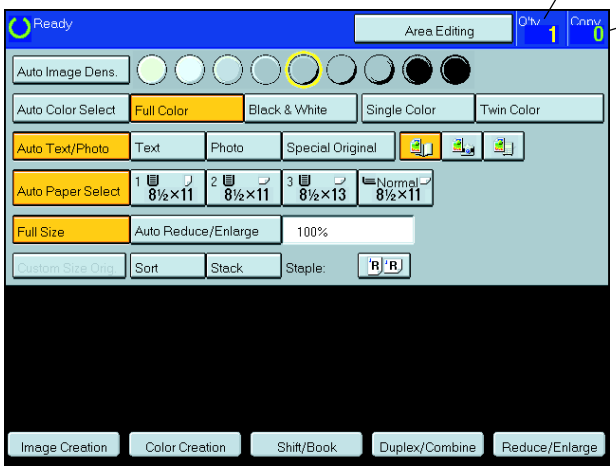
Press to enter data in selected modes.

18. [Number] keys

Use to enter the desired number of copies. They are also used to enter data.

Touch Panel Display

Initial display



This machine's features are accessed by simply pressing the name of the feature and following the instructions that come up on the display.

Reference

Regarding detailed information about each key and function, ☛ see page 12.

For how to use the touch panel display, ☛ see page 23.

What You can do with this Machine

Differences between Edit Type and Basic Type

This machine comes in two versions. Refer to the table below for features available on your machine.

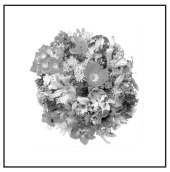
Functions		Edit type	Basic type
Auto Image Density		✓	✓
Auto Color Select		✓	✓
Full Color		✓	✓
Black & White		✓	✓
Single Color		✓	✓
Twin Color		✓	✓
Auto Paper Select		✓	✓
Reduce/ Enlarge	Preset R/E	✓	✓
	Zoom	✓	✓
	Directional Magnification	✓	✓
Shift/ Book	Shift	✓	✓
	Margin Adjustment	✓	✓
	Cover Sheet	✓	✓
Color Creation	Color Conversion	✓	✓
	Color Erase	✓	✓
	Color Background	✓	✓
Image Creation	Positive/Negative	✓	✓
	Mirror Image	✓	✓
Color Adjust-ment/Memory	Program User Color	✓	✓
	Color Adjustment	✓	✓
	Color Balance Adjustment	✓	✓
	Color Balance Program	✓	✓
	Image Adjustment	✓	✓
Area Editing		✓	–
Interrupt Copying		✓	✓
Auto Start		✓	✓
Program		✓	✓
Auto Reduce/Enlarge		✓	✓
Bypass Tray Copying		✓	✓
Duplex/Combine Copying		✓	✓
Default Setting		✓	✓
User Tools		✓	✓
Display Color		Full color	Full Color

What You can do with this Machine

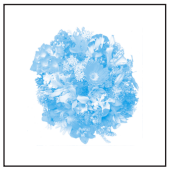
• Color Mode ⇒ Page 38

• Full Color Copy

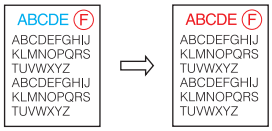
• Black & White Copy



• Single Color Copy

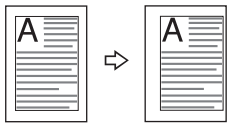


• Twin Color Copy

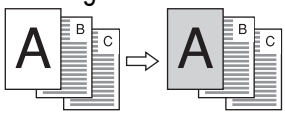


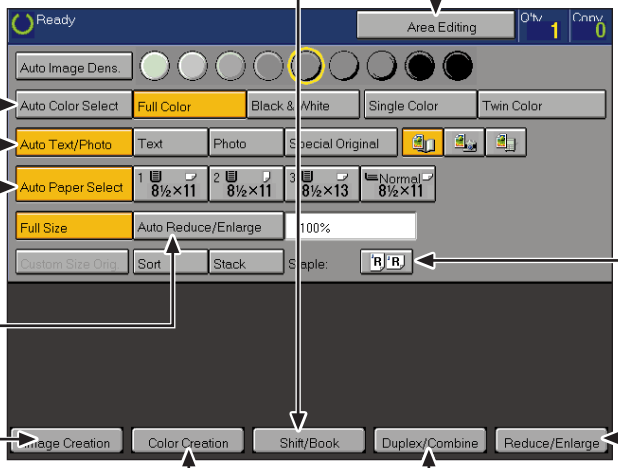
• Shift ⇒ Page 71

• Margin Adjustment ⇒ Page 72



• Cover Sheet ⇒ Page 74 *2



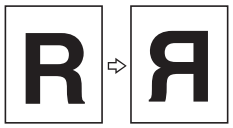


• Auto Text/Photo

• Auto Paper Select

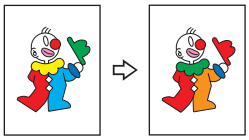
• Auto Reduce/Enlarge

• Mirror Image ⇒ Page 81

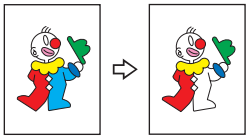


• Positive/Negative ⇒ Page 82

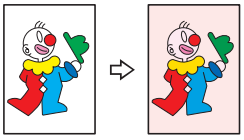
• Color Conversion ⇒ Page 77



• Color Erase ⇒ Page 79



• Color Background ⇒ Page 80

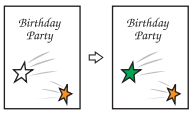


*1 Optional 20-bin sorter stapler, 10-bin sorter stapler or 3-bin sorter required.
*2 Optional 20-bin sorter stapler or 10-bin sorter stapler required.
*3 Optional document feeder required.
*4 Only for Edit type.

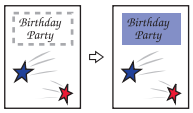
TLCX300N

• Area Editing ⇒ Page 103

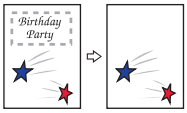
• Color Conversion *4
⇒ Page 116



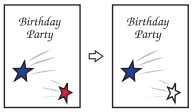
• Color Background *4
⇒ Page 116



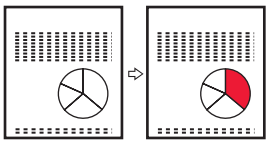
• Delete Area *4
⇒ Page 117



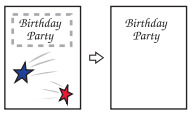
• Color Erase ⇒ Page 116 *4



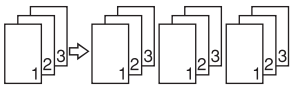
• Paint ⇒ Page 116 *4



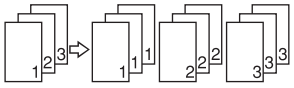
• Save Area ⇒ Page 118 *4



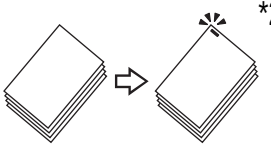
• Sort ⇒ Page 83 *1



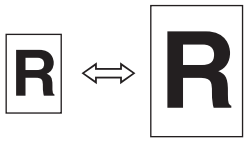
• Stack ⇒ Page 84 *1



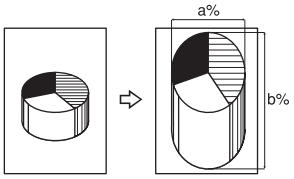
• Staple ⇒ Page 85 *2



• Preset R / E ⇒ Page 56

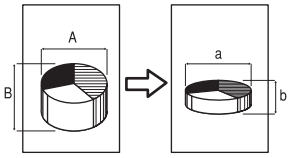


• Directional Magnification(%) ⇒ Page 59

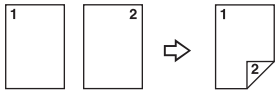


• Zoom ⇒ Page 57

• Directional Size Magnification (inch) ⇒ Page 60

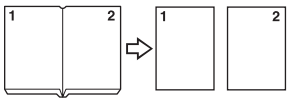


• 1 Sided → 2 Sided
⇒ Page 62

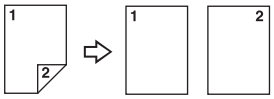


• 2 Sided → 2 Sided
⇒ Page 64

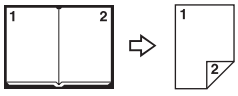
• Book → 1 Sided
⇒ Page 67



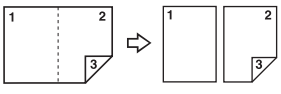
• 2 Sided → 1 Sided
⇒ Page 68



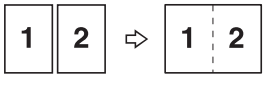
• Book → 2 Sided
⇒ Page 65



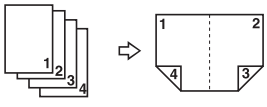
• Multi → 2 Sided
⇒ Page 66



• Combine 2 originals
⇒ Page 69 *3

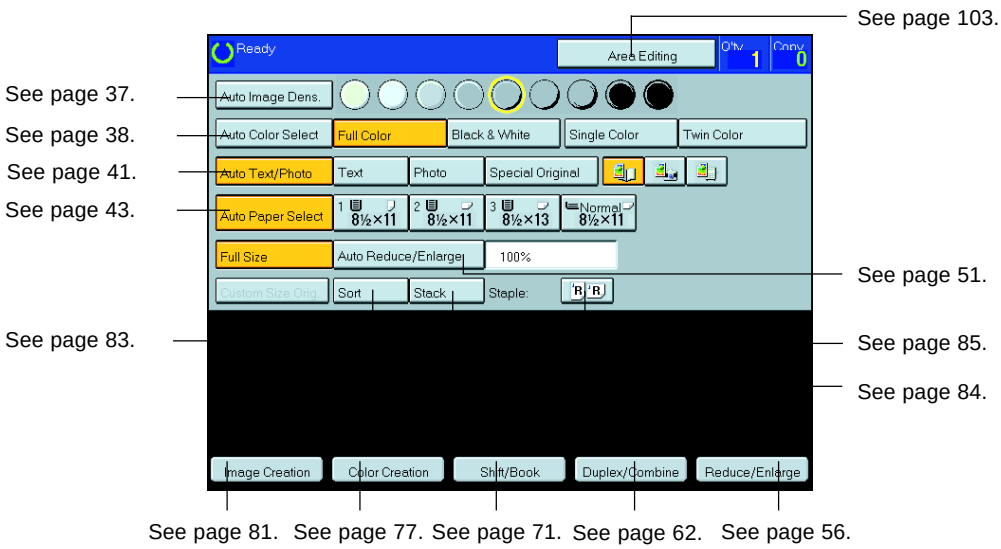


• Combine 4 originals
⇒ Page 70 *3



TLCX310E

Function Summary

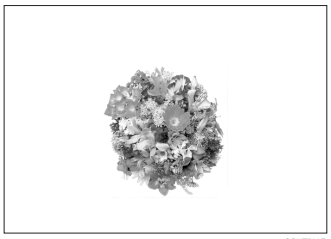


Selecting the Color

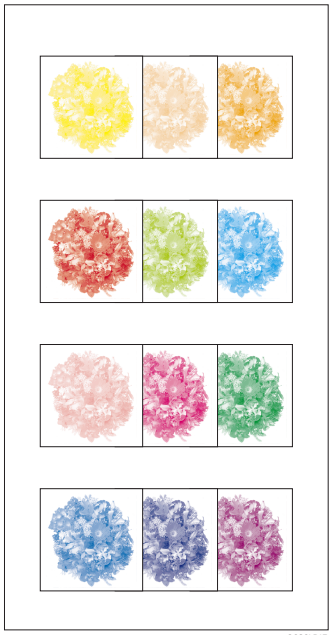
☛ see page 38.

Full color

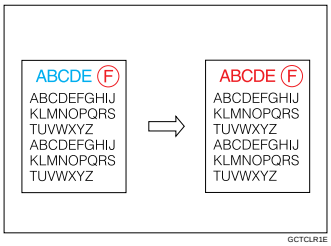
Black & White



Single color



Twin color

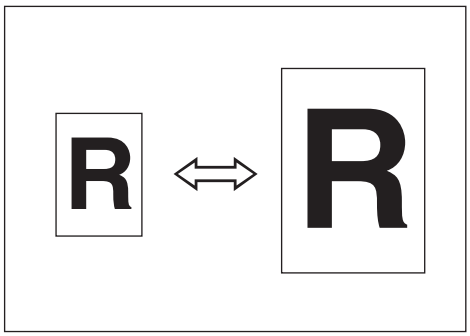


User Color

Reducing and Enlarging

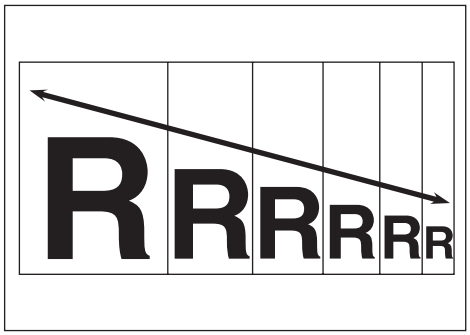
☛ see page 56.

Preset R/E—Reducing and enlarging using preset ratios



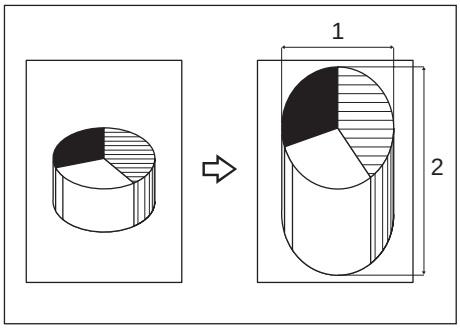
GCTHEN1E

Zoom—Reducing and enlarging in 1% steps



GCZOOM1E

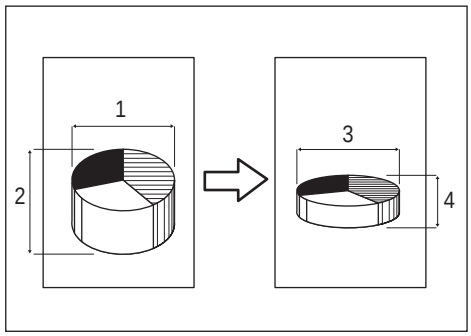
Directional Magnification (%)—Stretching and squeezing the image in 1 % steps



GCDHEN1E

1: Horizontal %
2: Vertical %

Directional Size Magnification (inch)—Stretching and squeezing the image into the copy area



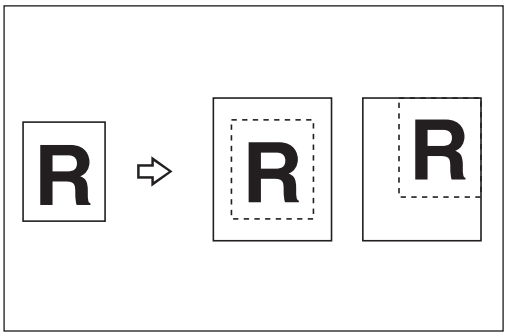
GCDHEN2E

1: Horizontal original size
2: Vertical original size
3: Horizontal copy size
4: Vertical copy size

Shifting the Image

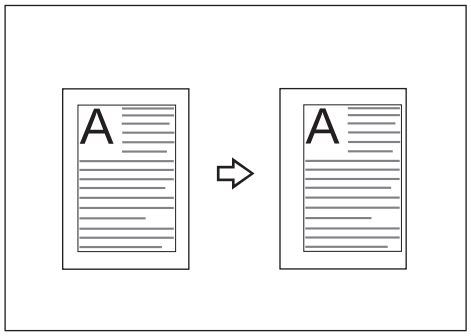
☛ see page 71.

Shift—Centering/Cornering the Image



GCIDOH3E

Margin Adjustment —Adding margins for binding

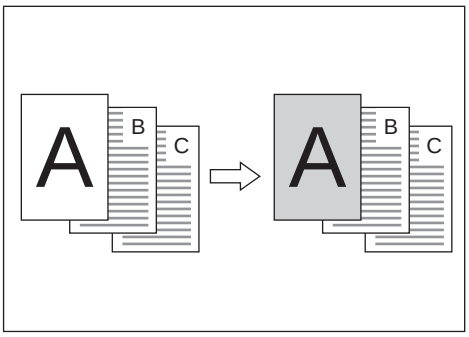


GCTOJS1E

Adding the Cover

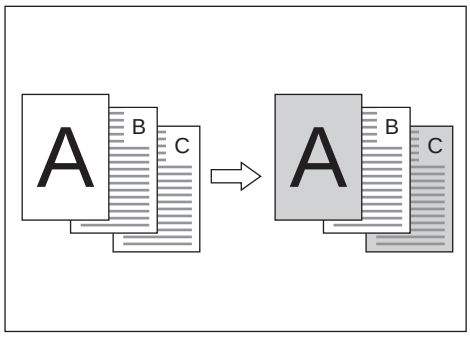
☛ see page 74.

Front Cover—Copying a front cover



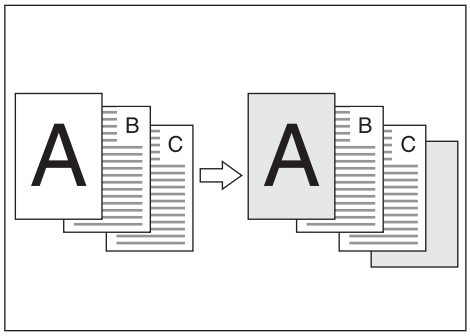
GCHYOS1E

Front & Back Cover—Copying front and back covers



GCHYOS3E

Front & Back Cover—Copying front cover and adding back cover

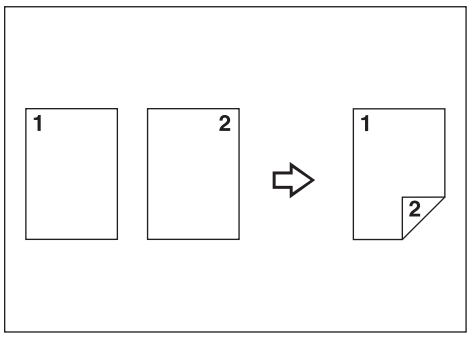


GCHYOS2E

Making Duplex Copies

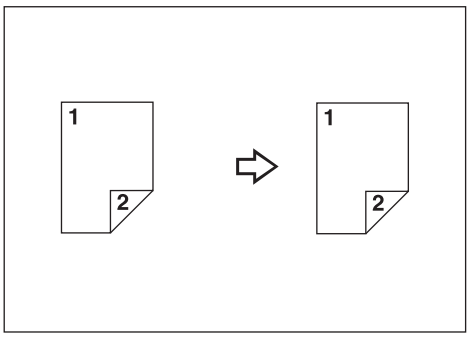
☛ see page 62.

1Sided –> 2 Sided—Making two-sided copies from one-sided originals



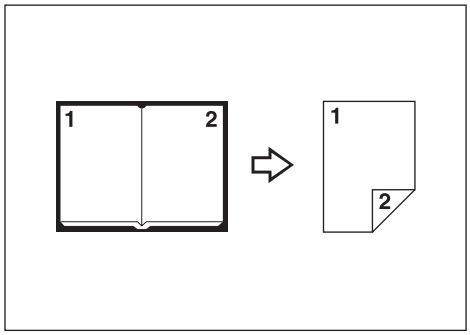
GCARYO1E

2 Sided –> 2 Sided—Making two-sided copies from two-sided originals



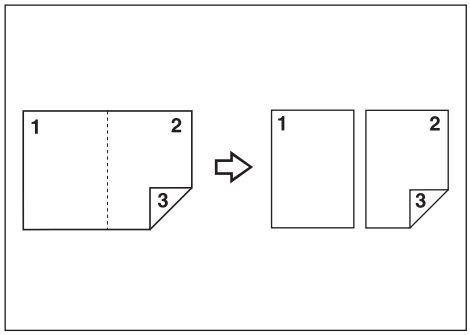
GCARYO2E

Book –> 2 Sided—Making two-sided copies from facing pages of a bound original



GCARYO3E

Multi –> 2 Sided—Making two-sided copies from a book

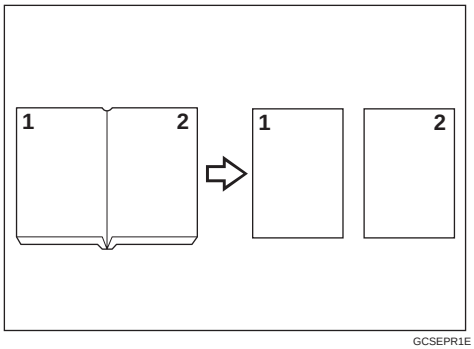


GCARYO4E

Making Series Copies

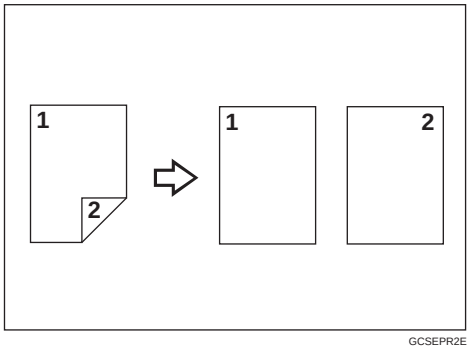
☛ see page 67.

Book –> 1 Sided—From book originals to 2 one-sided copies



GCSEPR1E

2 Sided –> 1 Sided—From two-sided originals to 2 one-sided copies

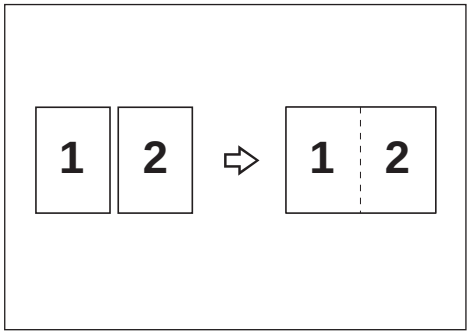


GCSEPR2E

Making Combine Copies

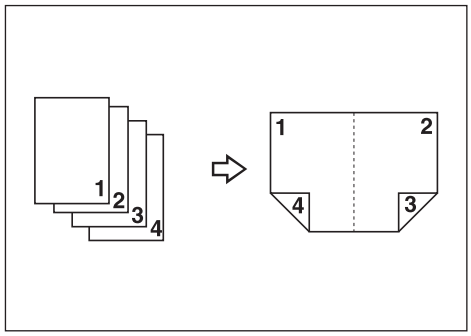
☛ see page 69.

Combine 2 Originals—Combining two originals



GCSYYK1E

Combine 4 Originals—Combining four originals

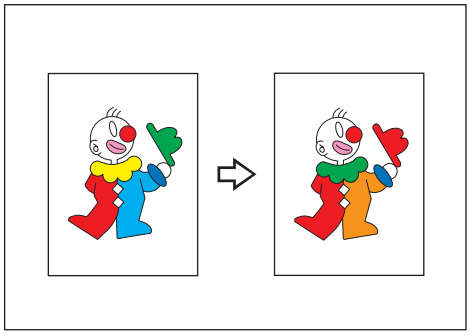


GCARYO5E

Color Creation

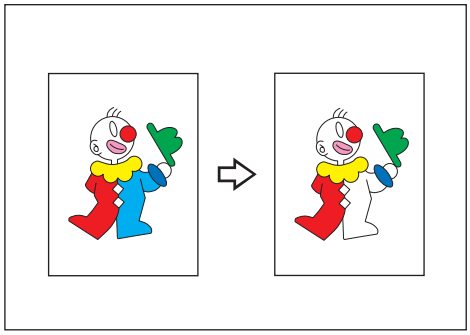
☛ see page 77.

Color Conversion—Converting a selected color into a different color



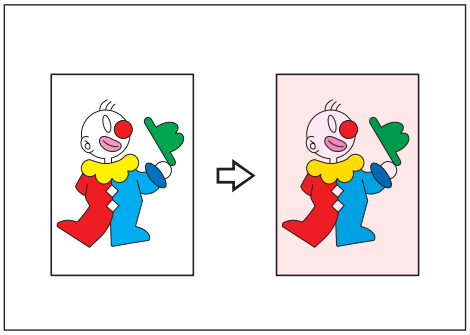
GCCLPRAE

Color Erase—Erasing the selected color



GCCLPR2E

Color Background—Making copies with a color background

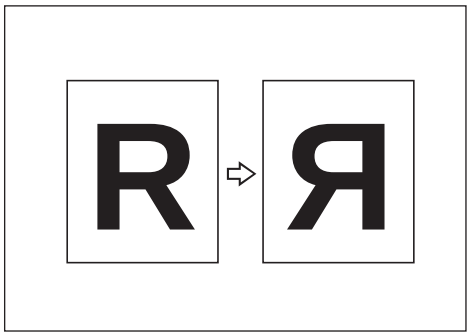


GCCLPR3E

Image Creation

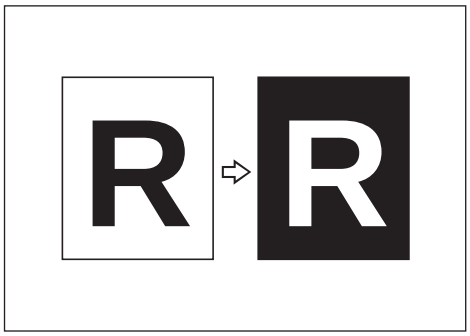
☛ see page 81.

Mirror Image—Making a mirror image



GCMILL1E

Positive/Negative—Copying in complementary colors

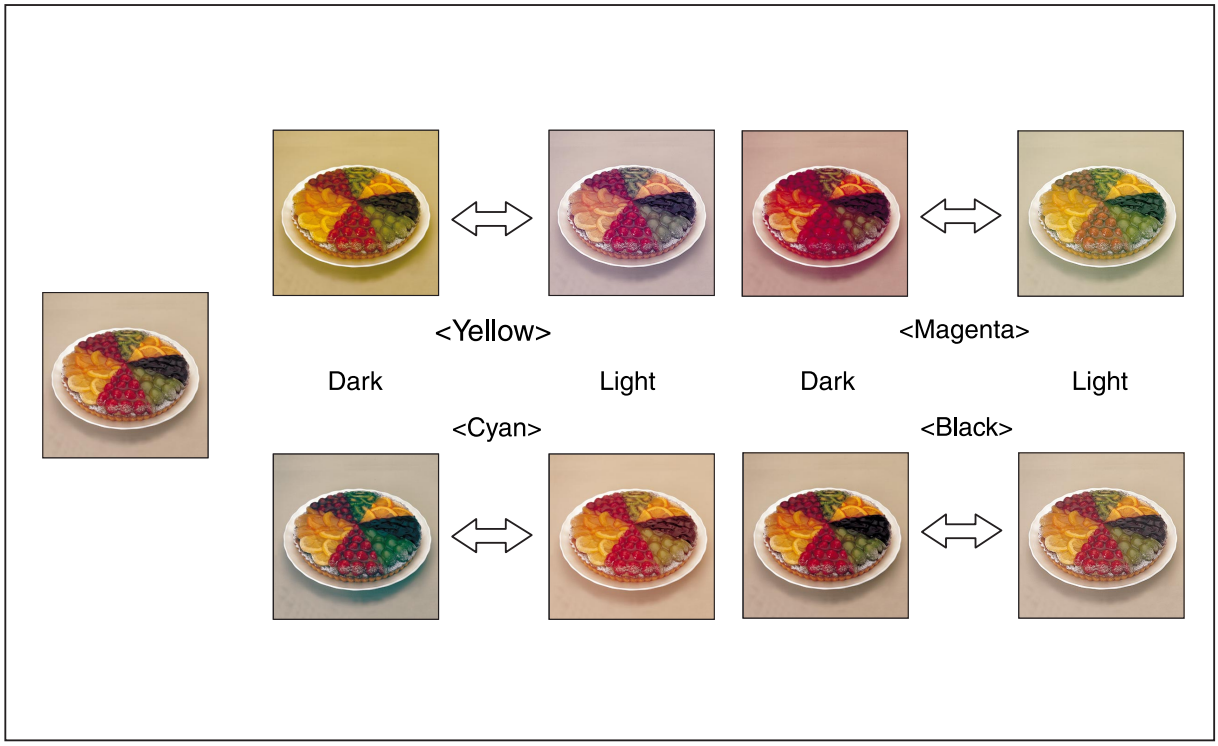


GCHATN1E

Color Balance—Adjusting and Storing the Color Balance

☛ see page 92.

Color Balance Adjustment—Adjusting the color balance

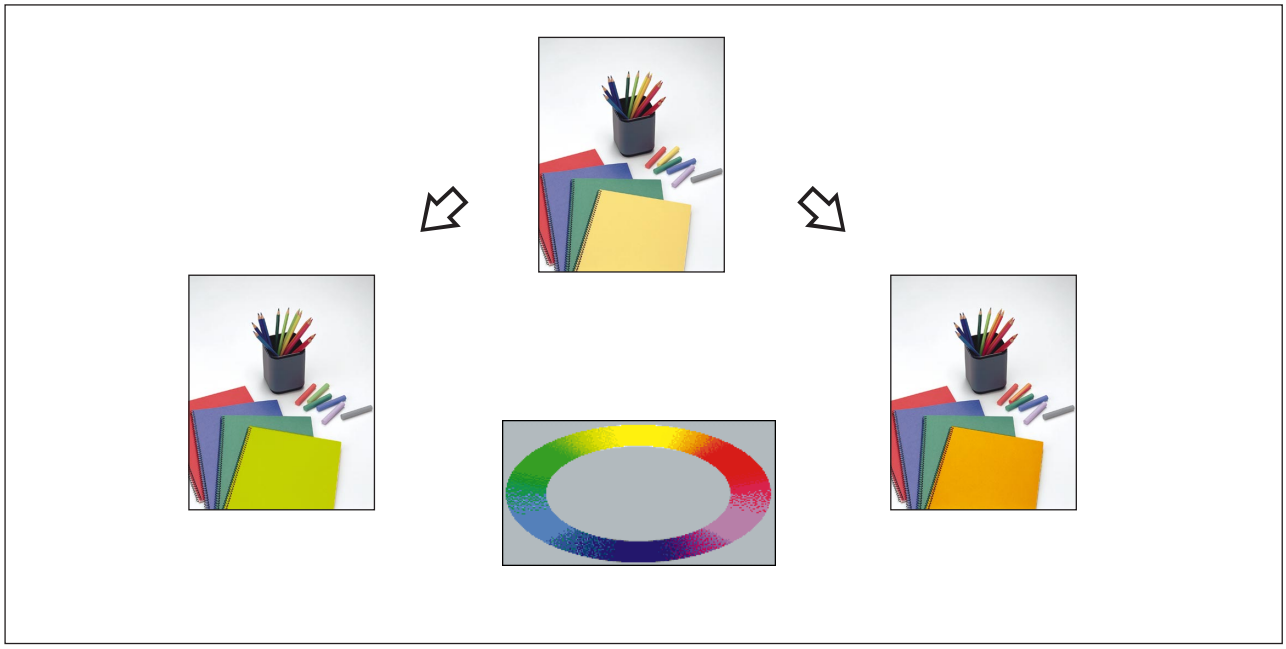


GCCLBA1E

Color Balance Program —Storing and recalling the color balance

Color Adjustment—Adjusting a Single Color

☛ see page 95.

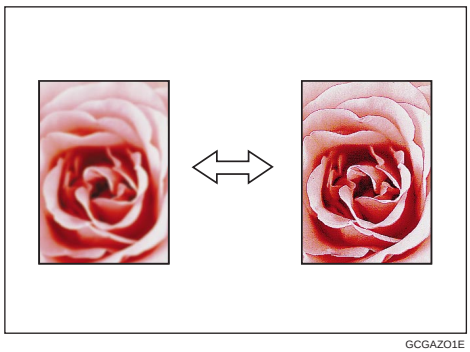


GCCLCY1E

Image Adjustment

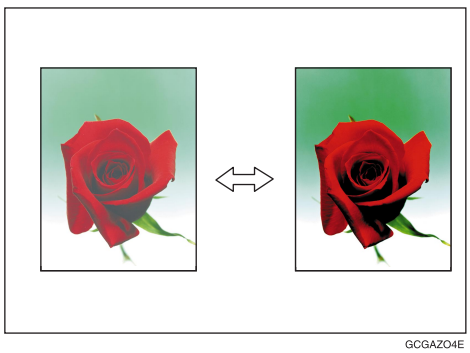
☛ see page 96.

Soft/Sharp



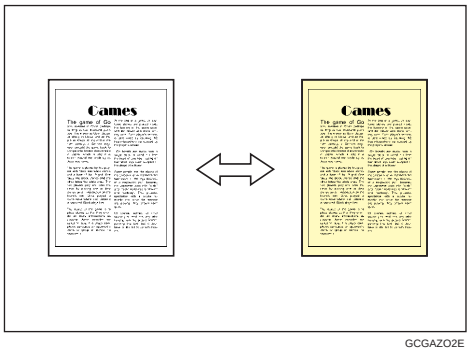
GCGAZO1E

Contrast



GCGAZO4E

Background Density



GCGAZO2E

Pastel

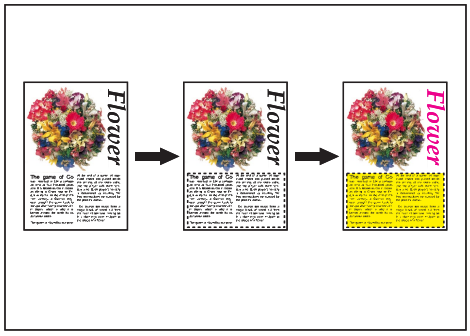
GCGAZO3E

Program User Color—Storing User Colors

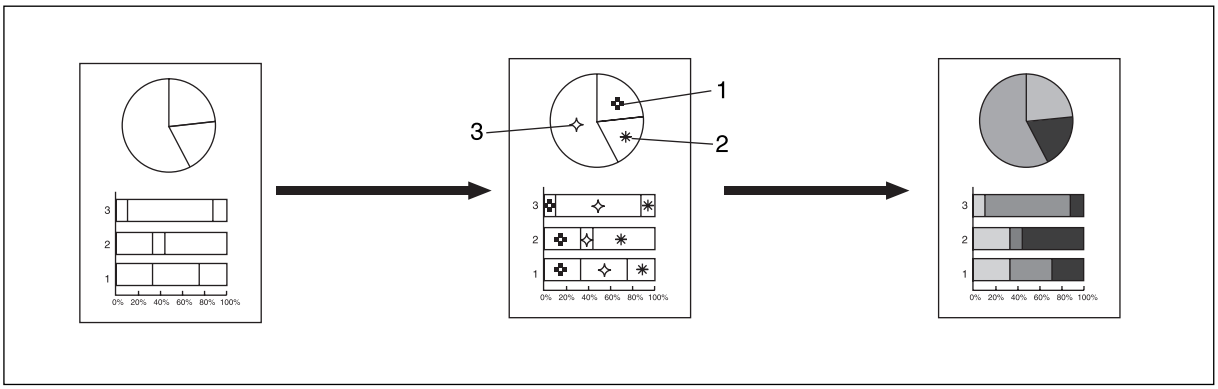
☛ see page 99.

Area Editing (Only for Edit Type)

☛ see page 103.



GCAREAEE

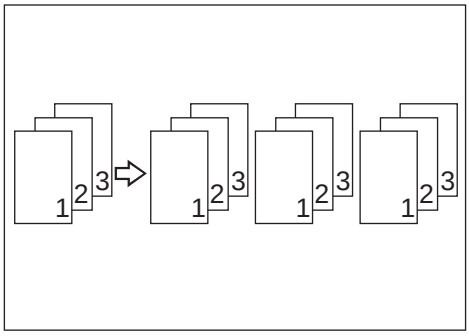


GCAREA1E

Finishing (Option)

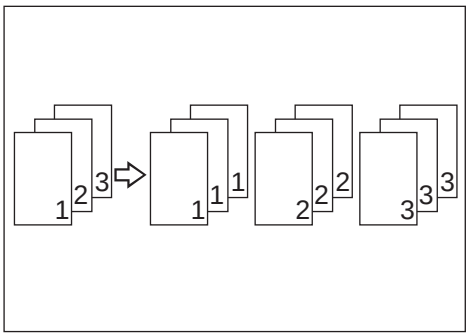
☛ see page 83.

Sort—Sorting into sets (123, 123, 123)



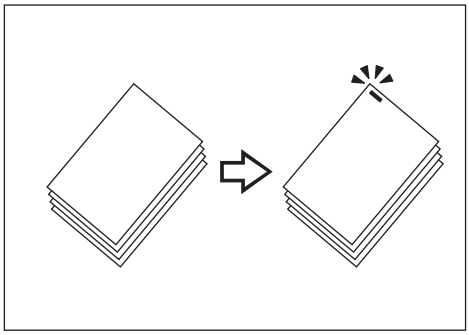
GCSORT1E

Stack—Stacking together all copies of a page (111, 222, 333)



GCSORT2E

Staple—Stapling copies



GCSORT3E

Using the Projector (Option)

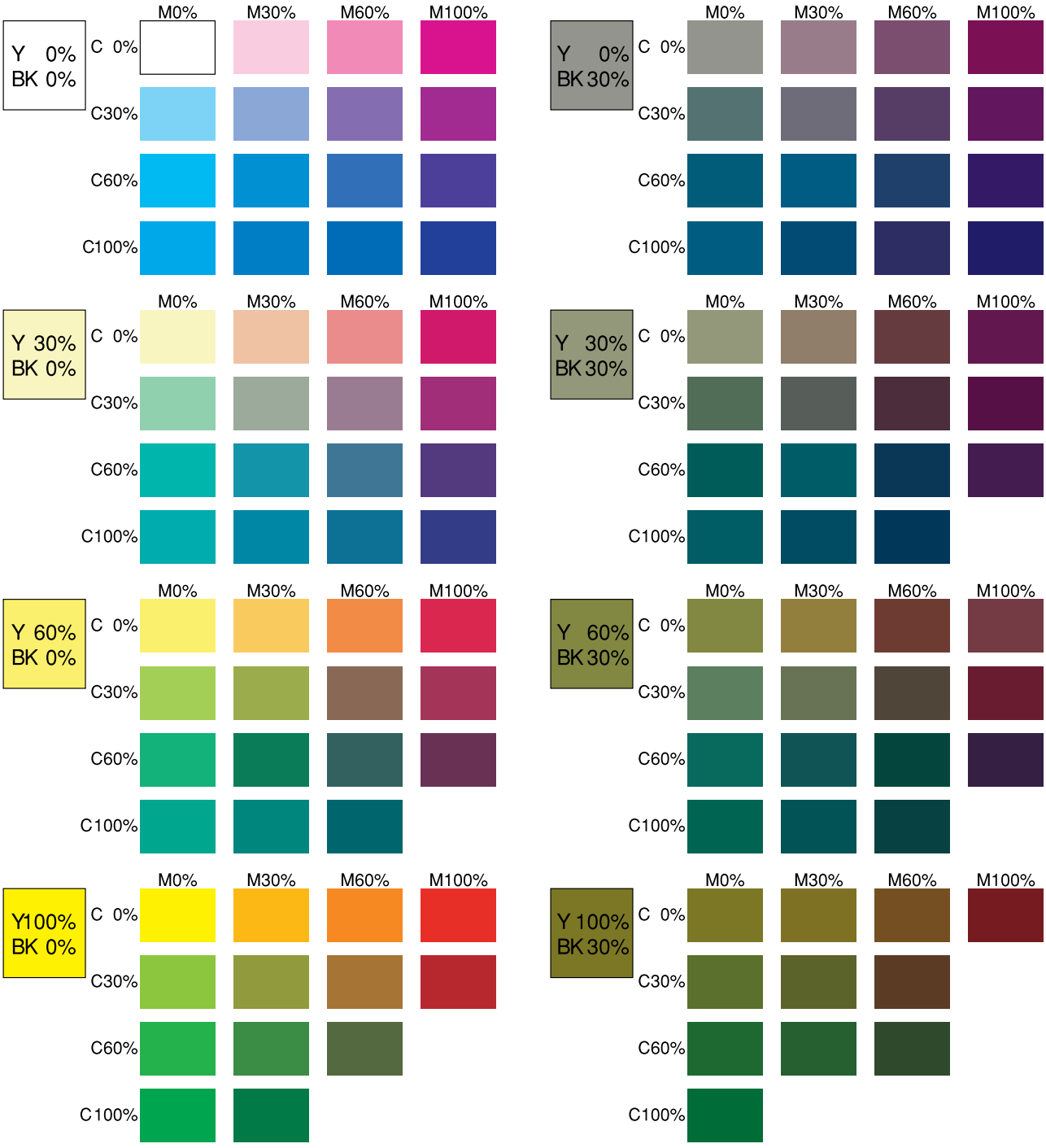
☛ see page 171.

Color Sample Chart

This is the User Color sample. You can mix the basic colors to make your own colors (User Color).

Note

❑ The color sample might differ somewhat from actual copies due to printing effects.

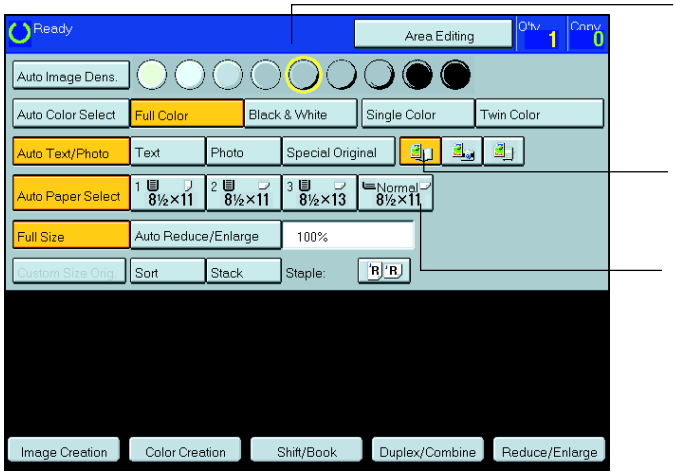


GCCLCT1J

Using the Touch Panel Display

Selecting Functions

On the touch panel display, you can find keys, instructions and messages. By pressing keys on the display, you can select or deselect functions, and enter data for the selected modes. If you make a mistake and wish to clear the current settings, press the **[Clear Modes]** key.



Messages and instructions appear here.

Keys that have been selected.

Keys that have the option of being selected.

Keys that do not have the option of being selected are fainter.

In this manual, keys on the display are indicated as follows:

Example:

Key on the display:

In the manual: **[Auto Paper Select]** key

Note

❒ Do not press the touch panel display with any hard or sharp object. Always use the editor pen.

Entering Numbers

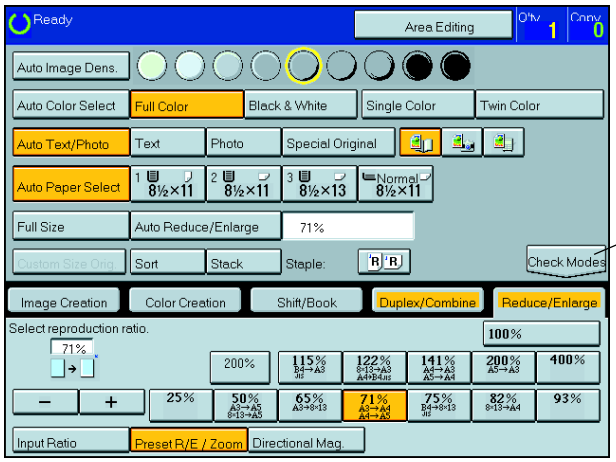
When the display prompts you to enter a number, type in the number with the **[Number]** keys and press the **[#]** key on the display to accept it.

Should you make a mistake:

- If you have not pressed the **[#]** key yet, press the **[Clear]** key and then re-enter it. If there is not the **[Clear]** key on the display, press the **[Clear/Stop]** key.
- If you have already pressed the **[#]** key, press the item you wish to change on the display and re-enter the number with the **[Number]** keys. Press the **[#]** key on the display to accept it.

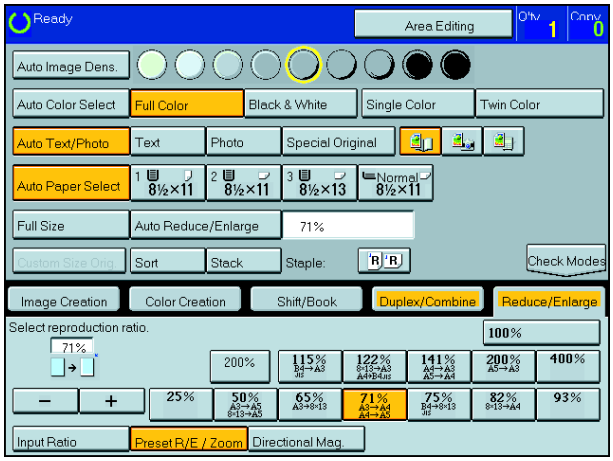
Checking the Functions You Have Selected

When you set one or more copy settings, the last item you selected will remain on the screen.

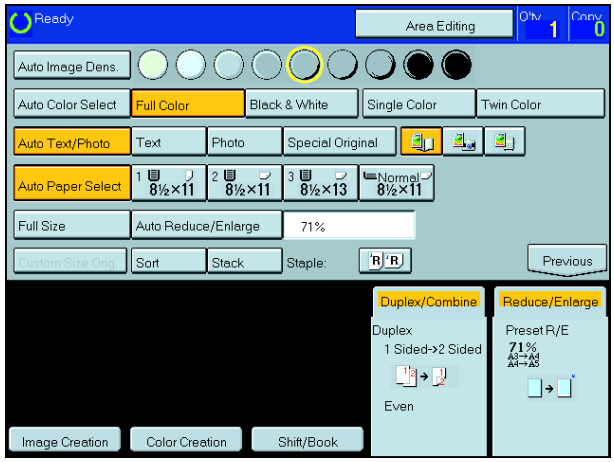


[Check Modes] key

To check all the settings you have set so far, press the **[Check Modes]** key.



❷



Basics

Starting the Machine

To start the machine, press the operation switch to turn the power on.

Note

❒ This machine automatically enters Energy Saver mode or turns itself off if you do not use the machine for a while. About Energy Saver mode, ☛ see page 52. About Auto Timer, ☛ see page 155.

Power Switches

This machine has the operation switch and main power switch.

❒ **Operation switch (right side of the operation panel)**

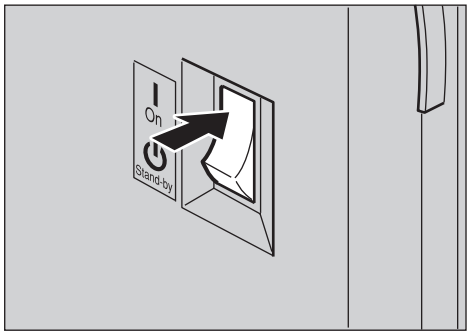
Press this switch to activate the machine. When the machine has warmed up, you can make copies.

❒ **Main power switch (left side of the machine)**

When the machine is not to be used for an extended period of time, turn off the main power switch.

Starting the Machine

1. Make sure that the power cord is plugged into the wall outlet firmly.
2. Turn on the main power switch.



TRSH080N

Turning on the Power

1. Press the operation switch to make the **On** indicator lights up.

Note

❒ If the power is not turned on when the operation switch is pressed, check if the main power switch is on. If off, turn it on.

❒ During the warm-up period (about 7 minutes), you can use the Auto Start function. ☛ see page 53.

When the machine is set for user codes

1. Enter your user code using the **【Number】** keys. Then press the **【#】** key.

Note

❒ To prevent others from making copies with your user code, press the **【Clear Modes】** key and the **【Clear/Stop】** key simultaneously after copying.

Reference

For setting user codes, ☛ see page 160.

When the Energy Saver indicator is lit

The machine is in Energy Saver mode.

1. Press any key.

The machine will return to the ready condition.

Note

❒ The machine will also return to the ready condition when an original is set in the document feeder, or when the platen cover or the document feeder is opened.

Originals

Standard Size Originals

The machine will detect original of the following sizes and directions as standard size originals:

❒ When you set originals on the exposure glass (platen glass)

Metric version	A3□, B4□, A4□, B5□, 8 1/2" x 13"□*1, 8 1/4" x 13"□*1, 8" x 13"□*1
Inch version	11" x 17"□, 8 1/2" x 14"□, 8 1/2" x 11"□,

❒ When you set originals in the document feeder

Metric version	A3□, B4□, A4□, B5□, A5□, B6□, 11" x 17"□, 8 1/2" x 11"□, , 8 1/2" x 13"□*1, 8 1/4" x 13"□*1, 8" x 13"□*1
Inch version	A4□, 11" x 17"□, 11" x 15"□, 10" x 14"□, 8 1/2" x 14"□, 8 1/2" x 13"□, 8 1/2" x 11"□, 8" x 10"□, 5 1/2" x 8 1/2"□

*1 8 1/2" x 13", 8 1/4" x 13", or 8" x 13", can be set by your service representative.

Recommended Originals

Reference

For originals that the document feeder can handle, ☛ see page 205.

Non-recommended Originals for the Document Feeder

Note

❒ The following types of originals are not recommended for use with the document feeder. Place them directly on the exposure glass (platen glass).

❒ Originals thicker than 128g/m², 34 lb

❒ Originals thinner than 40g/m², 11 lb

❒ For originals between 40 and 52g/m², 11 and 14 lb, the document feeder must be set to Thin Paper mode with the user tools. ☛ see page 162.

❒ Originals larger than A3, 11" x 17"

❒ Originals smaller than B6□, 5 1/2" x 8 1/2"□

❒ Folded, curled, creased, or damaged originals

❒ Mailing labels, or perforated originals

❒ Bound, stapled, or clipped originals

❒ OHP transparencies

❒ Translucent paper

❒ Pasted originals

❒ Damp originals

❒ Sticky originals

❒ Wavy originals

❒ Originals that are not made from paper

❒ Originals written in pencil on both sides, or two-sided carbon originals

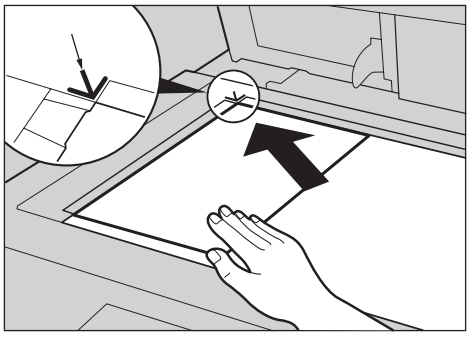
❒ Thermal fax paper, CRO (camera ready originals) or aluminum foil

❒ Books, pamphlets, and booklets

Setting Originals on the Exposue Glass (Platen Glass)

1. Lift the platen cover or the document feeder.

2. Set the original face down on the exposure glass (platen glass). The original should be aligned to the rear left corner.



TCAR050E

1. Reference mark
2. Scale

3. Lower the platen cover or the document feeder.

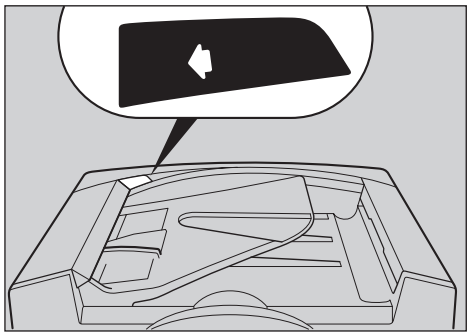
Setting a Stack of Originals in the Document Feeder

You can insert a stack of originals into the document feeder. These originals are individually fed onto and removed from the exposure glass (platen glass).

Note

- ❒ Some originals are unsuitable for the document feeder. ☛ see page 28.
- ❒ Do not press down or hold originals after inserting them.
- ❒ While originals are fed from the original table to the exposure glass (platen glass), do not pull them out.
- ❒ Do not lift the document feeder until the original has been completely fed out.

1. Correct any curl, fold, or crease in the originals before setting the originals.
2. Make sure the **Insert Original** indicator is lit and the exposure glass (platen glass) is clear of originals.

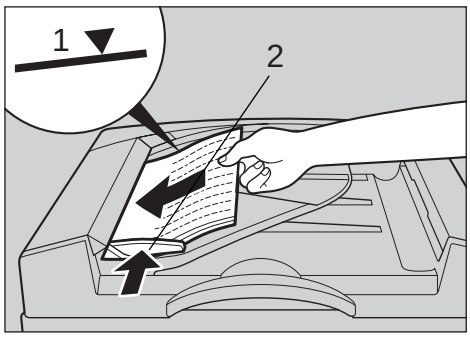


TRSR050E

3. Adjust the guide to the original size.
4. Set the originals *face up* into the document feeder until the **Insert Original** indicator goes off.

Note

- ❒ The last page should be on the bottom.
- ❒ The original guide must touch the front side of the originals.
- ❒ Do not stack originals above the limit mark.



TCAR060E

1: Limit mark
2: Original guide

Setting one Original at a Time in the Document Feeder

If you set one original at a time in the document feeder, the second and subsequent originals can be fed and copied automatically without pressing the **[Start]** key.

Note

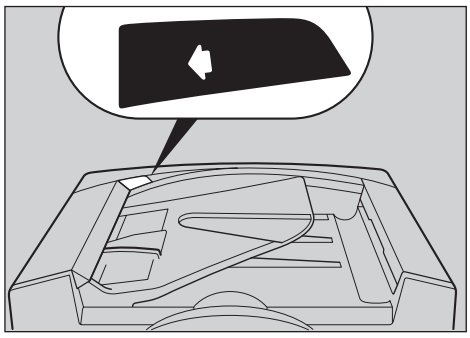
❒ Do not press down or hold originals after inserting them.

❒ While originals are fed from the original table to the exposure glass (platen glass), do not pull them out.

❒ Do not lift the document feeder until the original has been completely fed out.

1. Correct any curl, fold, or crease in the originals before setting.

2. Make sure the **Insert Original** indicator is lit and the exposure glass (platen glass) is clear of originals.



TRSR050E

3. Adjust the guide to the original size.

4. Set the original *face up* into the document feeder until the **Insert Original** indicator goes off.

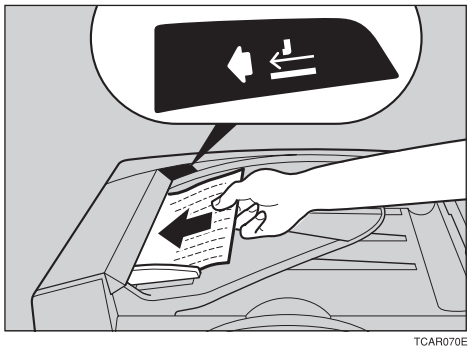
Note

❒ If you are copying a stack of originals one sheet at a time and you want to keep them in order, start with the last page of the originals.

❒ The original guide must touch the front side of the original.

5. Press the **[Start]** key.

6. While the **Auto Feed** indicator is lit after an original is fed, set the next original. The original is automatically fed and copied.



TCAR070E

Note

❒ You can adjust the time the machine waits before being ready for the next original with the user tools. ☛ see page 155.

Setting Originals of Different Sizes in the Document Feeder

You can insert a stack of originals of different standard sizes (e.g. A4, B5 etc.) into the document feeder. These originals are individually fed onto and removed from the exposure glass (platen glass).

Preparation

To use this function, you have to select ADF Mixed Sizes mode with the user tools. ☛ see page 162.

Limitation

❒ The weight of originals that can be set with this function is 52 - 81g/m², 14 - 20 lb.

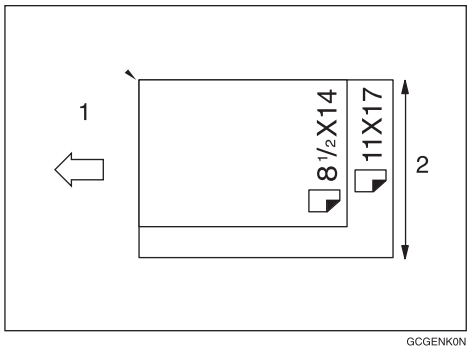
❒ Smaller size originals might be skewed a little.

Note

❒ If your stack of originals contains pages of different sizes, make sure that:

- Longer originals are at the bottom of the stack, and shorter originals are at the top.
- All originals are flush with the back fence of the document feeder.

1 Align the rear and left edges of the originals as shown in the illustration.



1: Set into the document feeder
2: Vertical size

2 Adjust the guide to the widest original size.

3 Set the aligned originals face up into the document feeder.

Setting Custom Sized Originals

When copying from custom sized originals, enter the original size so that copy is well aligned.

Limitation

❒ You must set your custom size originals on the exposure glass (platen glass).

Reference

For the standard sizes the machine can detect, ☛ see page 28.

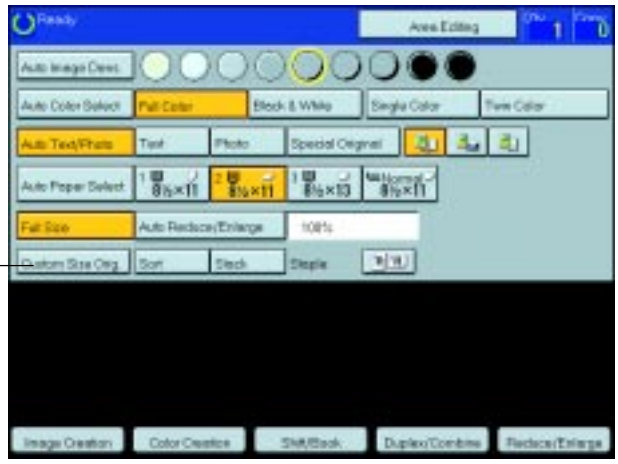
Note

❒ The dimensions you can enter must be within the following ranges:

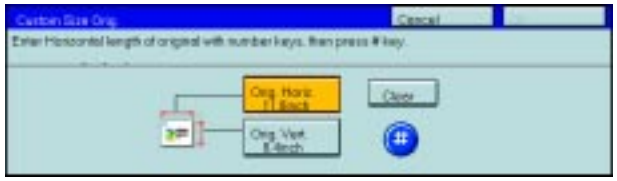
Vertical size	50 - 297mm (in 1mm steps), 2.0" - 11.7" (in 0.1" steps)
Horizontal size	50 - 432mm (in 1mm steps), 2.0" - 17" (in 0.1" steps)

1 Select the copy paper size.

2 Press the **[Custom Size Orig.]** key.



3 Make sure that the **[Orig. Horiz]** key is selected. Enter the horizontal size with the **[Number]** keys, then press the **[#]** key.



Note

❒ To change the value entered, press the **[Clear]** key and enter a new value.

4 Press the **[Orig. Vert]** key and enter the vertical size with the **[Number]** keys, then press the **[#]** key.

5 Press the **[OK]** key.

6 Set your original on the exposure glass (platen glass), then press the **[Start]** key.

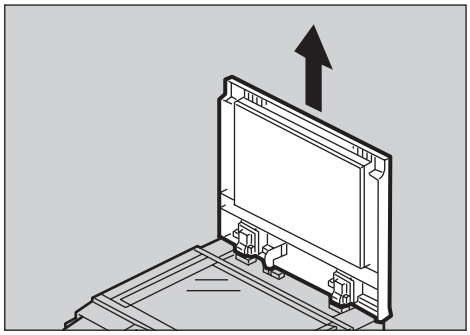
Removing the Platen Cover to Copy a Large Original

You can remove the platen cover to copy a large (more than A3, 11" × 17") original.

Note

❒ You cannot remove the document feeder.

To remove the platen cover, lift it out.

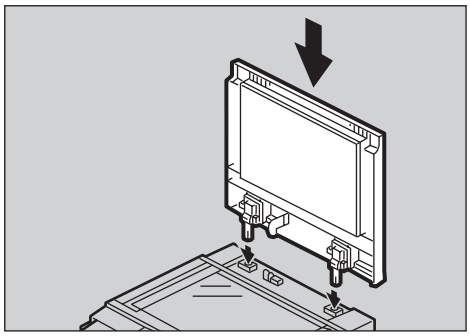


TLCH060E

Note

❒ Lift the platen cover with both hands. Place the removed cover on a flat surface such as a desk and where it will not be damaged.

To reset the platen cover, align the pins of the platen cover and the holes of the copier. Then push the platen cover into the machine.



TLCH061E

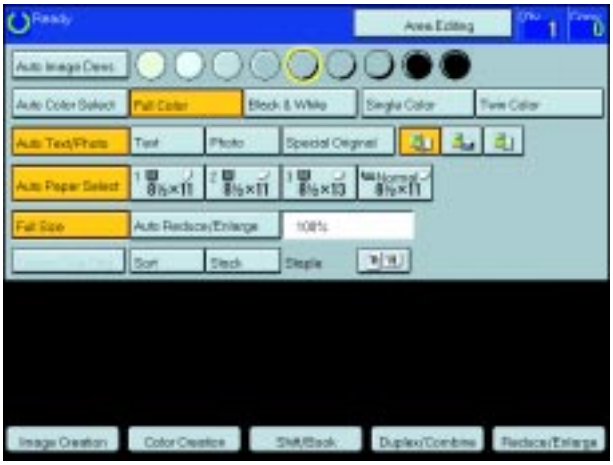
Copying

Basic Operation

How to Make Copies

1 Set your original on the exposure glass (platen glass) or in the document feeder.
☛ see page 29, 30, or 31.

2 Confirm that the **[Full Color]**, **[Auto Text/ Photo]**, **[Auto Paper Select]**, **[Full Size]** keys are selected. If not, press the keys.



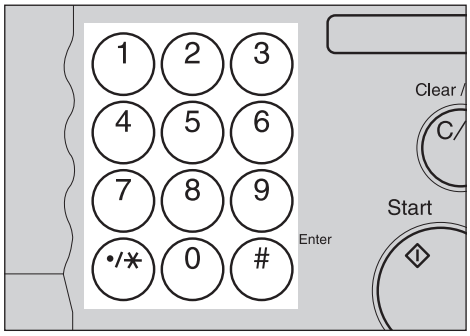
Note

❒ Full Color copy mode ☛ see page 38.

❒ Auto Text/Photo ☛ see page 41.

❒ Auto Paper Select ☛ see page 43.

3 Enter the number of copies required using the **[Number]** keys.



TLCS140N

Note

❒ To change the number entered, press the **[Clear/Stop]** key, then enter the new number.

4 Press the **[Start]** key.

Note

❒ To stop the machine during a multi-copy run, press the **[Clear/Stop]** key.

❒ To return the machine to the initial condition after copying, press the **[Clear Modes]** key.

Adjusting Copy Image Density

Image density affects the contrast of copies. With these functions you can control the image density so that copies match originals. Make the selection you require then set your originals and press the **[Start]** key.

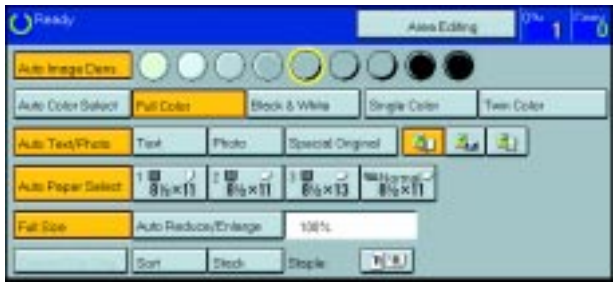
Auto image density

The machine automatically controls the image density.

Note

❒ Auto Image Density and Auto Color Select cannot be set together.

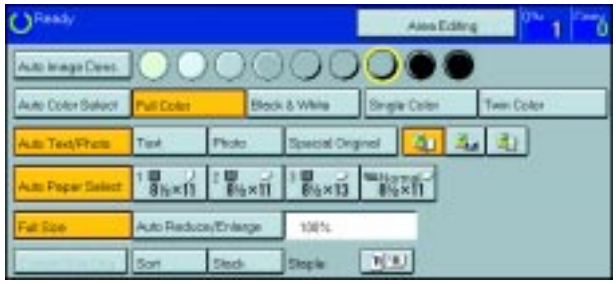
1. If Auto Color Select mode is selected, select other color modes to cancel it. ☛ see page 38.
2. Press the **[Auto Image Density]** key.



Manual image density

If you require darker or lighter copies, adjust the image density yourself.

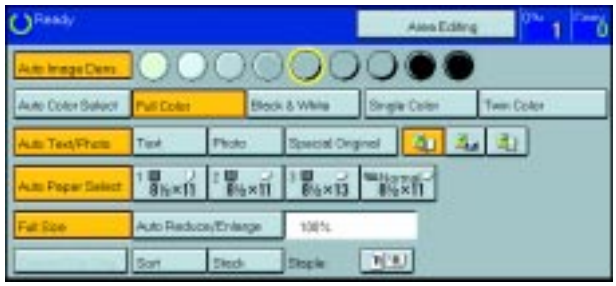
1. If **[Auto Image Density]** key is selected, press it to cancel it.
2. Press the desired color density level.



Combined auto and manual image density

Use when copying originals with a dirty background (such as newspapers). You can adjust the foreground density while masking out the dark background.

1. If Auto Color Select mode is selected, select other color modes to cancel it. ☛ see page 38.
2. Press the **[Auto Image Density]** key.
3. Press the desired color density level.



Selecting a Color Mode

Select a color mode that best suits your originals and copying requirements.

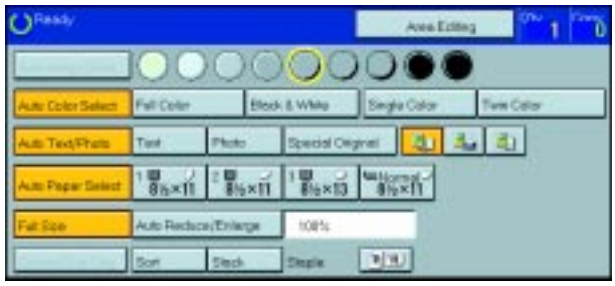
Auto color select mode

The machine automatically detects whether the original has color parts or not. Originals with only black images will be copied in Black & White mode. Originals with some color areas will be copied in Full Color mode.

Note

❒ If you make one copy set of a black original using the document feeder, it is recommended to select Black & White mode. If you choose Auto Color Select mode, the machine will reset the color selection for every original page, taking a long time to complete the job.

1 Press the **[Auto Color Select]** key.



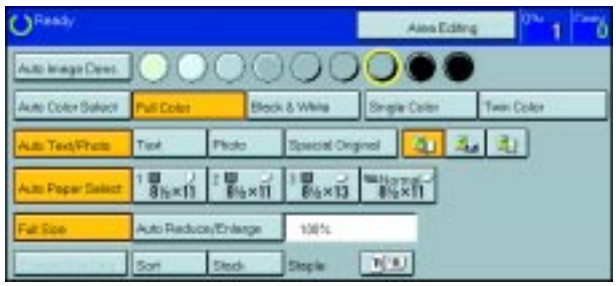
2 Set your originals, then press the **[Start]** key.

Full color copy mode

This function makes copies in full color.

❒ You can adjust the overall color tone of copies.
☛ see page 92.

1 Make sure that the **[Full Color]** key is selected.



Note

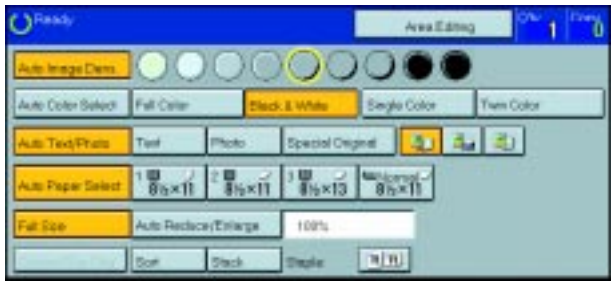
❒ If not, press the **[Full Color]** key.

2 Set your originals, then press the **[Start]** key.

Black & White copy mode

This function makes copies in black.

1 Press the **[Black & White]** key.



2 Set your originals, then press the **[Start]** key.

Single color mode

This function makes copies in single colors.

Note

• 12 basic colors:

Yellow, Orange, Red, Magenta, Green, Cyan, Blue, Yellow Green, Beige, Marine Blue, Pink, Purple

• 15 user colors:

Up to 15 colors can be manually mixed and stored in memory. ☛ see page 101.

Reference

For copy samples, ☛ see page 12.

-Basic color

1. Press the **[Single Color]** key.
2. Select the color.

Note

❒ You can select the color density level.

3. Press the **[OK]** key.
4. Set your originals, then press the **[Start]** key.

-User colors

Note

❒ When Single Color copying, user colors might come out lighter.

Reference

Program User Color, ☛ see page 99.

1. Press the **[Single Color]** key.
2. Press the **[User Color]** key.

3 Select the color.

Note

❒ You can select the color density level.

4 Press the **[OK]** key.

5 Set your originals, then press the **[Start]** key.

Twin color mode

This function makes copies with black parts in the selected color and other parts in the other selected color.

Reference

For copy samples, ☛ see page 12.

Note

❒ You can have colored areas copied in one of the following colors:
Red, Green, Blue, Yellow, Cyan, Magenta, Yellow Green, Orange, Marine Blue, Beige, Pink, Purple and Use Colors
❒ You can have black parts copied in one of the following colors:
Red, Green, Blue, Yellow, Cyan, Magenta, Yellow Green, Orange, Marine Blue, Beige, Pink, Purple and User Colors

1 Press the **[Twin Color]** key.

2 Select the color you want to copy in for the color parts of the original.

3 If you want to change the black parts, press the **[Change Black]** key.

Note

❒ If you don't want to change the black parts, go to step 5.

4 Select the color you want to copy in for the black parts of the original. Then press the **[OK]** key.

5 Press the **[OK]** key.

6 Set your originals, then press the **[Start]** key.

Selecting the Original Image Type

To optimize the likeness between copies and originals, select an image type that matches your originals.

Note

❒ You can adjust the readability of black lettering in colored areas, ☛ see page 95.

Auto Text/Photo mode

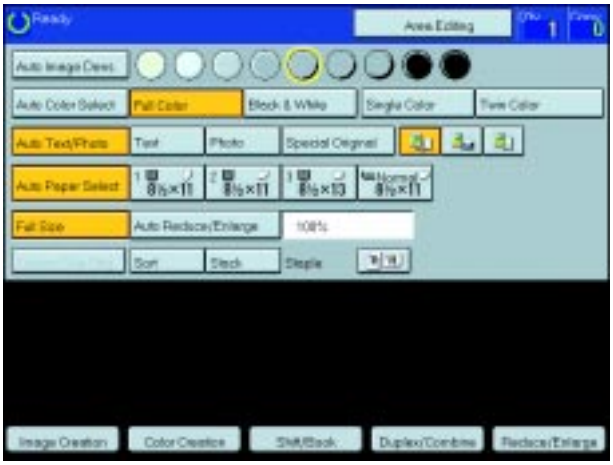
This mode automatically detects the areas of your original containing text or photographs. The text areas are copied using Text mode, and the photographs are copied with Photo mode.

Note

❒ There are 3 types of Photo mode:

- **[Press Print]**: Use when copying photographs or pictures that are printed on paper (e.g. magazines).
- **[Glossy Photo]**: Use when copying developed photographs.
- **[2nd Generation]**: Use when copying copies or originals printed from printers.

1. Make sure that the **[Auto Text/Photo]** key is selected.



Note

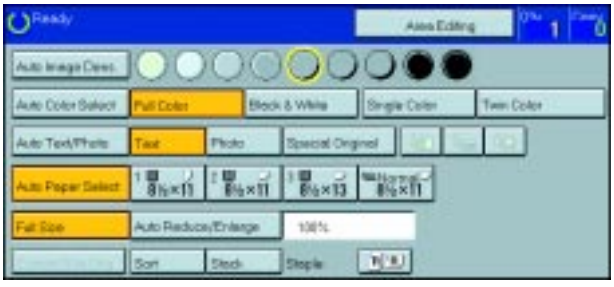
❒ If not, press the **[Auto Text/Photo]** key.

2. Select your desired photo mode.
3. Set your originals, then press the **[Start]** key.

Text mode

This modes is suitable for copying originals consisting of characters, line diagrams, and letter, but not photographic images.

1. Press the **[Text]** key.



2. Set your originals, then press the **[Start]** key.

Photo mode

This mode is suitable for copying originals consisting of pictures, photographs, and screened letters/areas, but not solid letters.

Note

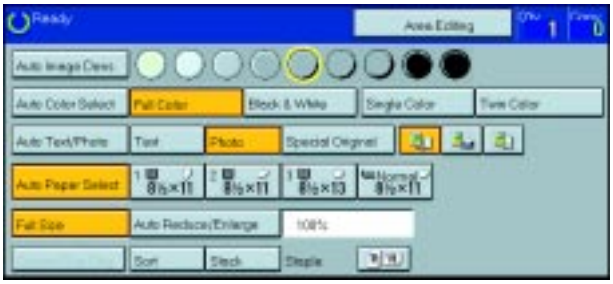
❒ There are 3 types of Photo mode:

[Press Print]: Use when copying photographs or pictures that are printed on paper (e.g. magazines).

[Glossy Photo]: Use when copying developed photographs.

[2nd Generation]: Use when copying copies or originals printed from printers.

1 Press the **[Photo]** key.



2 Select your desired photo mode.

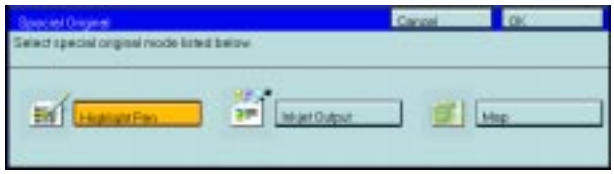
3 Set your originals, then press the **[Start]** key.

Special original mode

Use this function for originals written in highlight pen, originals printed from inkjet printers, or maps.

1 Press the **[Special Original]** key.

2 Select your desired original type from the **[Highlight Pen]**, **[Inkjet Output]**, and **[Map]** key.



3 Set your originals, then press the **[Start]** key.

Selecting the Copy Paper Size

Select a suitable size of copy paper based on the original size and the reproduction ratio.

Auto paper select

The machine automatically selects a suitable size of copy paper based on the original size and the reproduction ratio.

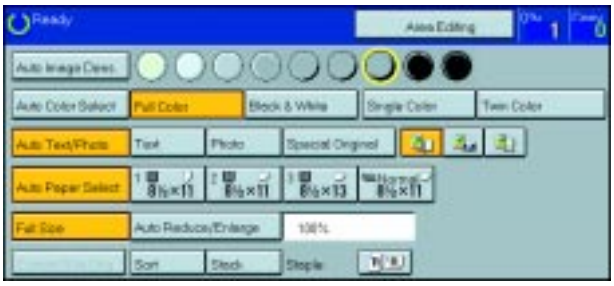
Reference

For functions that cannot be used together with this function, ☛ see page 88.

Note

❒ Depending on the original type and size you use, the machine cannot detect original size. In this case, select paper size manually.

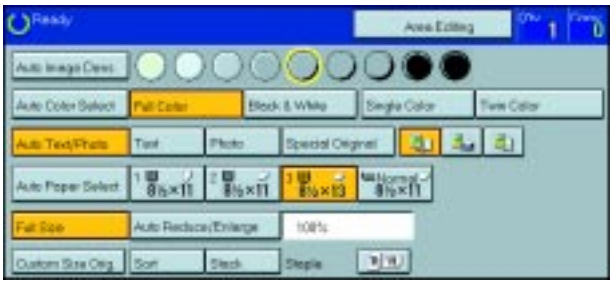
1 Make sure that the **[Auto Paper Select]** key is selected.



Manual paper select

You can select the copy paper manually.

1 Select the copy paper.

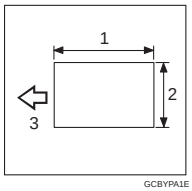


Copying from the Bypass Tray

Use the bypass tray to copy onto thick paper, adhesive labels, OHP transparencies, or custom size paper. Also use the bypass tray to copy onto the reverse side of paper that has already been copied onto.

Note

❒ The following limitations apply:

<table>
<tr><td rowspan="4">Acceptable paper types</td><td colspan="2">Normal paper (52 - 105g/m², 14 - 28 lb)
Thick paper (105 - 160g/m², 28 - 43 lb)
Post cards
OHP transparencies
Adhesive labels
Translucent paper</td></tr>
<tr><td>Standard size</td><td>Metric version:
▭: A3, B4, A4, B5, A5, B6, A6, 11" × 17", 12" × 18"
▯: A4, B5, A5, 8 1/2" × 11"</td></tr>
<tr><td></td><td>Inch version:
▭: 12" × 18", 11" × 17", 8 1/2" × 11", 5 1/2" × 8 1/2"
▯: 8 1/2" × 11", 5 1/2" × 8 1/2"</td></tr>
<tr><td>Custom size
 

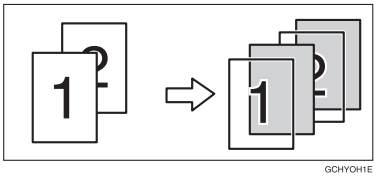
GCBYPA1E
1:Horizontal
2:Vertical
3:Feed direction</td><td>Metric version:
Vertical: 100 - 305mm (in 1mm steps)
Horizontal: 140 - 457mm (in 1mm steps)

Inch version:
Vertical: 3.9" - 12.0" (in 0.1" steps)
Horizontal: 5.5" - 18.0" (in 0.1" steps)</td></tr>
<tr><td>Number of sheets that can be set at one time</td><td colspan="2">Normal paper: 50 sheets
Thick paper, OHP transparencies: 30 sheets (smaller than 8" × 13")
15 sheets (8" × 13" or large)
Adhesive labels: 30 sheets
Translucent paper: 50 sheets
Post cards: 25 sheets</td></tr>
</table>

❒ Select one of the following settings or keys:

[Normal Paper] : normal paper
[Thick] : thick paper, post cards, adhesive labels, translucent paper
[OHP] : OHP transparencies
[Duplex Back] : Copying onto the reverse side of paper that has been already copied onto. ☛ see page 49.
[Custom Size] : Select this after the paper type for custom sized paper. ☛ see page 46.

❒ When you copy onto OHP transparencies, you can select whether a blank slip sheet is inserted between OHP transparencies.



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❒ When you set several sheets at a time, fan them to get air between them before loading.

❒ If the copy paper is curled, gently roll it to remove the curl.

❒ When you copy onto OHP transparencies, insert them with the copy side up.

❒ Do not stack copy paper above the limit mark.

❒ If the copy paper is curled, correct it before setting paper in the bypass tray. If the curled is not corrected, a paper misfeed might occur.

❒ When the optional sorter stapler is installed, copies made onto thick or OHP transparencies are not delivered in the proof tray but in the first bin instead.

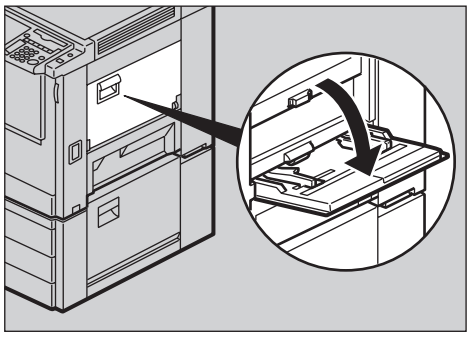
❒ When setting custom size paper, be sure to set the size after pressing the [Custom Size] key.

Copying onto standard size paper with the bypass tray

Note

❒ When you copy onto the reverse side of paper that has been already copied onto, ☛ see page 49.

1 Open the bypass tray.



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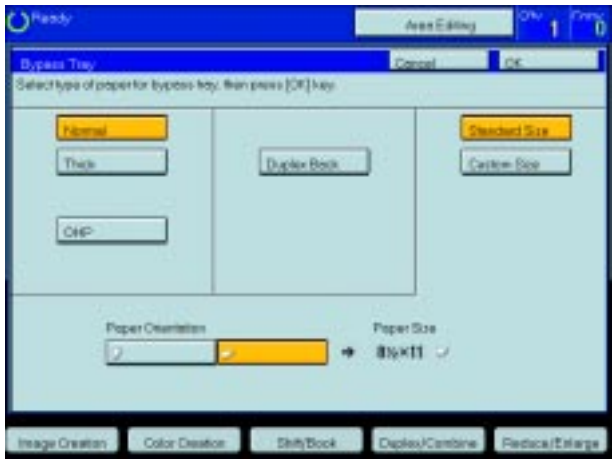
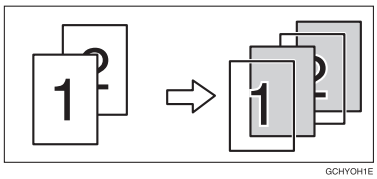
2 Press the **[Normal]**, **[Thick]**, or **[OHP]** key.



Note

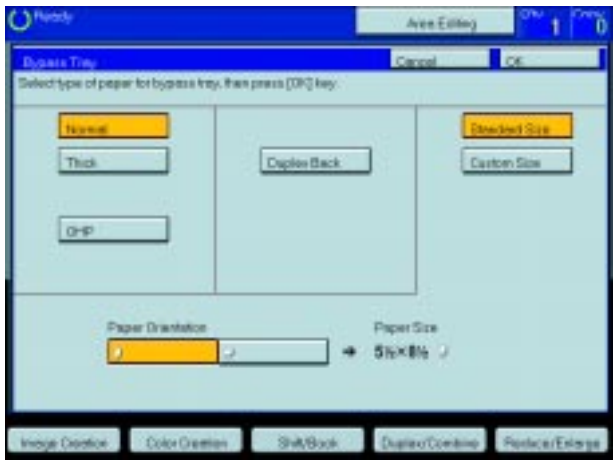
❒ Make sure that the **[Standard Size]** key is selected.

❒ When you copy onto OHP transparencies, you can select whether a blank slip sheet is inserted between OHP tranparencies.



GCHYOH1E

3 Press the **[▯ / ▭]** key to select paper orientation.



4 Press the **[OK]** key.

5 Adjust the paper guides to the paper size.

Note

❒ Make sure that the paper guides matches to the paper size. If the paper guides are not adjusted to the paper size properly, paper might be skewed or a paper misfeed might occur.

❒ With large copy paper (more than A4□, 8 1/2" × 11"□), swing out the extender.

1:Horizontal size
2:Vertical size
3:Extender
4:Paper guides

6 With the side you wish to copy onto face up, insert the paper into the bypass tray until it stops.

7 Set your originals, then press the **[Start]** key.

Copying onto custom size paper with the bypass tray

Preparation

You can register custom paper sizes you use often in keys **[Custom1]**, **[Custom2]**, and **[Custom3]** with the user tools.
☛ see page 157.

Note

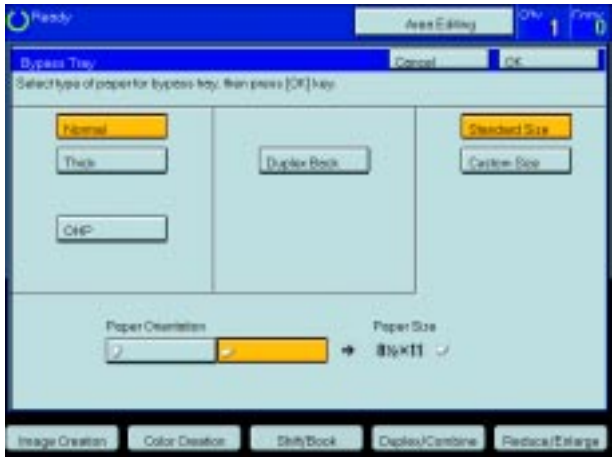
❒ Be sure to set the size. Otherwise, a paper misfeed might occur.

1 Open the baypass tray.

2 Press the **[Normal]**, **[Thick]**, or **[OHP]** key.

3 Press the **[□/□]** key to select paper orientation.

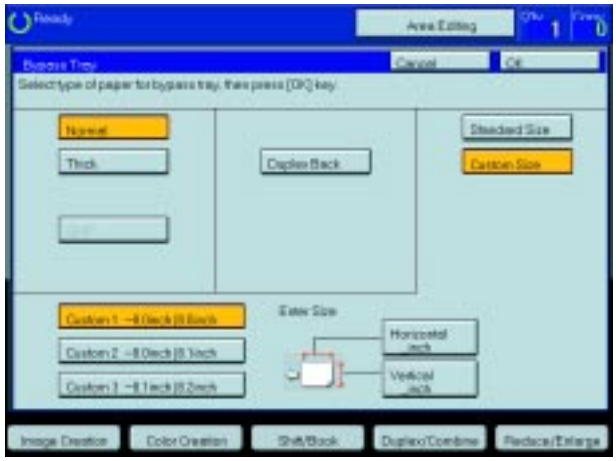
4 Press the **[Custom Size]** key.



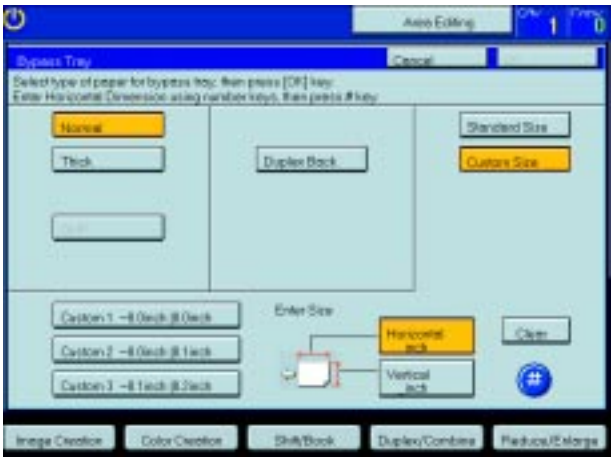
5 Select **[Custom1]**, **[Custom2]**, **[Custom3]** or **[Enter Size]** keys.

Note

❒ If you select **[Custom1]**, **[Custom2]**, or **[Custom3],** go to step 8.



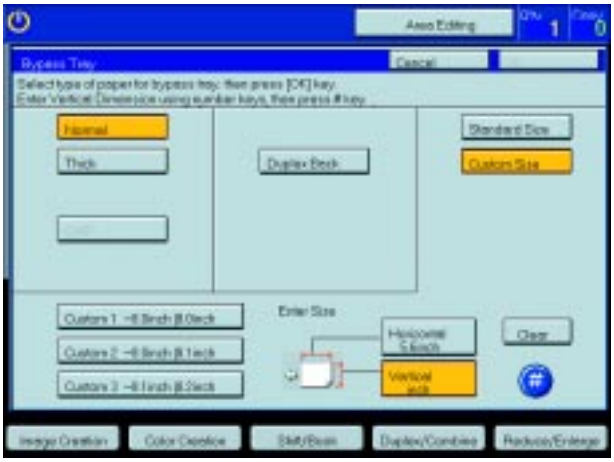
6 If you select **[Enter Size]** in step 5, enter the horizontal paper size with the **[Number]** keys, then press the **[#]** key.



Note

❒ To change the value entered, press the **[Clear]** key and enter a new value.

7 Enter the vertical paper size with the **[Number]** keys, then press the **[#]** key.



8 Press the **[OK]** key.

9 Adjust the paper guides to the paper size.

Note

❒ Make sure that the paper guides match the paper size. If the paper guides are not adjusted to the paper size properly, paper might be skewed or a paper misfeed might occur.

10 Insert the paper into the bypass tray.

11 Set your originals, then press the **[Start]** key.

Making A3, 11" × 17" full bleed copies

1: A3, 11" × 17" size Original
2: In standard copy mode, margins appear on copies
3: 12" × 18" Full Bleed Copy
4: Cut around the margins to produce a full image

If you adjust the paper guides of the bypass tray more than A3 (11") size, A3 11" × 17" full bleed copying mode is automatically selected.

In this mode, you can make A3, 11" × 17" full bleed copies with 12" × 18" paper. This is useful to make A3, 11" × 17" size copies with colored background (e.g. catalogues).

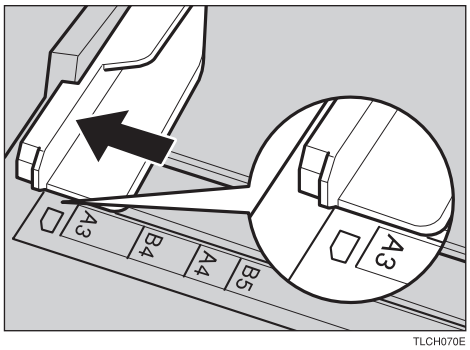
Note

❒ This function can be used with 12" × 18" paper.

❒ When A3, 11" × 17" full bleed copying mode is selected, the paper direction is automatically, changed to widthwise ▭.

❒ If you want to select this mode, expand the paper guides as shown in the illustration.

<Left guide> <Right guide>



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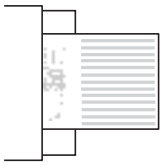
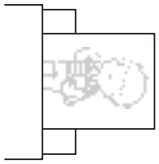
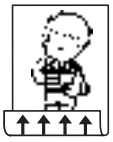
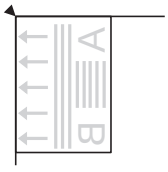
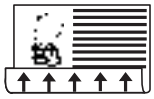
Copying onto the reverse side of paper that has been already copied onto

Note

❒ If you wish to copy 2 sided onto normal paper, use the Duplex feature. ☛ see page 62.

❒ Make sure that you set your original and the copy paper in the correct direction to achieve the results you require.

Original set on the exposure glass	Copy paper set in the bypass tray	Copies
GCMRYO2E		
		
GCMRYO4E		
		
GCMRYO1E		
		
GCMRYO3E		

❒ You cannot use this function for OHP transparencies, translucent paper, adhesive labels and postcards.

❒ Do not use copy paper that has been already copied on with other machines.

❒ If the copy paper is curled, correct it before setting paper in the bypass tray. If the curl is not corrected, a paper misfeed might occur.

1 Open the bypass tray.

2 Insert the paper into the bypass tray.

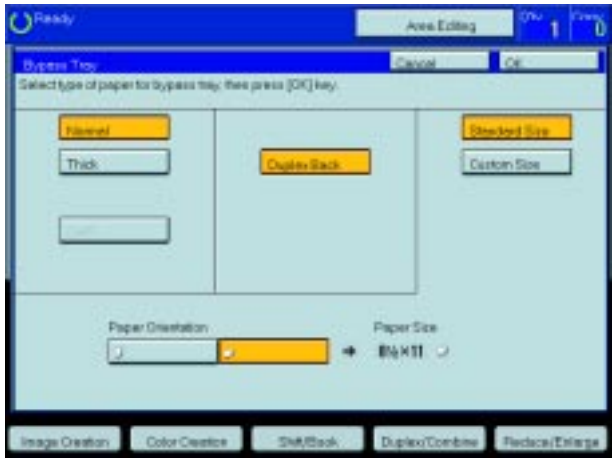
Note

❒ Make sure the front side (the side that has been copied onto) faces down.

3 Press the **[Normal]** or **[Thick]** key.

4 Press the [▯ / ▭] key to select paper orientation.

5 Press the **[Duplex Back]** key.



Note

❒ When you copy onto custom size paper, press the **[Custom Size]** key and select or enter the size. For details, ☛ see page 46.

6 Press the **[OK]** key.

7 Adjust the paper guides to the paper size.

Note

❒ Make sure that the paper guides match the paper size. If the paper guides are not adjusted to the paper size properly, paper might be skewed or a paper misfeed might occur.

8 Set your originals, then press the **[Start]** key.

Auto Reduce/Enlarge—Having the Machine Choose the Reproduction Ratios

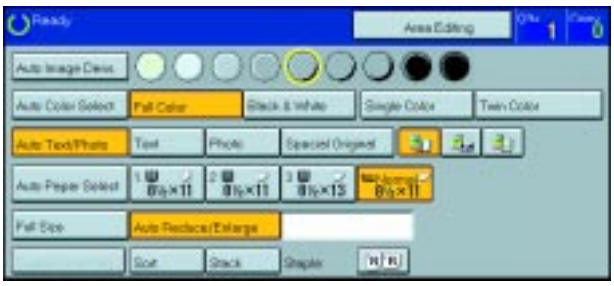
The machine can select the proper reproduction ratio based on the selected paper size and the original size.

Reference

For functions that cannot be used together with this function, ☛ see page 88.

Example:
Metric version: original: A3□, copy paper: A4□
Inch version: original: 11" × 17"□, copy paper: 8 1/2" × 11"□

1 Press the **[Auto Reduce/Enlarge]** key.



2 Set your originals on the exposure glass (platen glass) or in the document feeder.
☛ see page 29, 30 and 31.

3 Choose your copy paper size (e.g. A4□, 8 1/2" × 11"□).

4 Press the **[Start]** key. The original image is enlarged or reduced to fit the selected copy paper.

Energy Saver Mode—Saving Energy

If you do not operate the machine for a certain period after copying or press the **[Energy Saver]** key, the display goes out and the machine enters Energy Saver mode. When you press the **[Energy Saver]** key again and originals are set in the document feeder or when the platen cover or document feeder is opened, the machine returns to the ready condition. In Energy Saver mode, the machine uses less electricity.

1. Press the **[Energy Saver]** key to enter the Energy Saver mode.

Note

❒ To cancel this mode, press the **[Energy Saver]** key again.

Interrupt Copying—Temporarily Stopping one Job to Copy Something Else

Use the **[Interrupt]** key to interrupt a copy run and make urgently needed copies.

Reference

For functions that cannot be used together with this function, ☛ see page 88.

1. Press the **[Interrupt]** key. The machine will stop the copy run and store the present settings in the memory. The machine will return to the ready condition.

2. Remove the previous originals. Set your originals for interrupt copying on the exposure glass (platen glass) or in the document feeder.

3. Make your copies.

4. After interrupt copying is completed, press the **[Interrupt]** key again. The machine will recall the previous copy settings.

5. Reset the previous originals and press the **[Start]** key to resume the previous run.

Auto Start—Entering Copy Job Settings During the Warm-up Period

If you press the **[Start]** key during the warm-up period, the **[Start]** key will blink and the machine will start copying after the warm-up period.

1. Set your copy settings during the warm-up period.
2. Press the **[Start]** key.

Note

❒ To cancel Auto Start, press the **[Clear/Stop]** key.

Program—Storing and Recalling Your Copy Settings in Memory

You can store up to five frequently used copy job settings in machine memory and recall them for future use.

Note

❒ If you want to change the stored programs, store another program again.

Storing Your Settings

1. Set the copy settings you want to put into memory.
2. Press the **[Program]** key.
3. Press the **[Program]** key.

4. Select the program number you want to store the settings in.

Note

❒ If this program number is already being used, the machine asks whether you wish to overwrite it or not. Press the **[Yes]** or **[No]** key.

Recalling Your Settings

1. Press the **[Program]** key.

Note

❒ If you want to recall Area Edit settings stored in a program, press the **[Area Editing]** key then press the **[Program]** key.

❒ After you recall the Area Edit settings stored in a program, you can change them. However, you can not add or delete the Area/Group.

2. Press the **[Recall]** key.
3. Select the program number you want to recall. The stored settings are displayed.

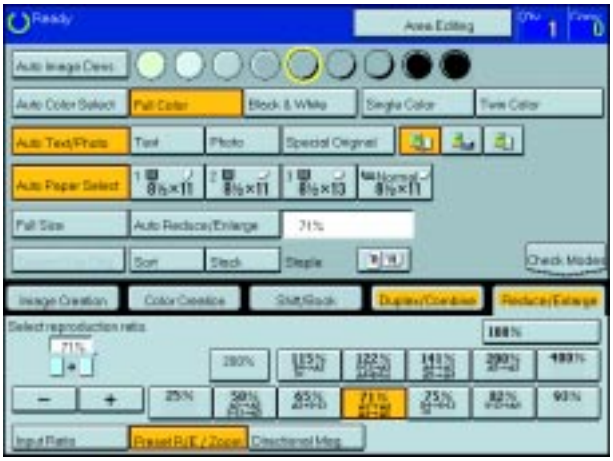
Note

❒ Only programs with ◈ contain a program.

4. Set your originals, then press the **[Start]** key.

Check Modes—Checking the Selected Copy Jobs

By pressing the **[Check Modes]** key, you can see at a glance the modes you have selected.

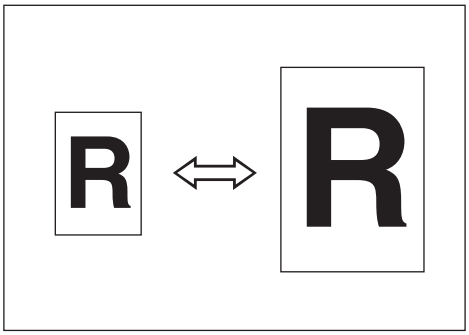


Counter—Checking the Total Number of Copies Made

By pressing the **[Counter]** key, you can check the total number of copies made.

Reduce/Enlarge—Reducing and Enlarging

Preset R/E—Reducing and Enlarging Using Preset Ratios



GCTHEN1E

Reference

For functions that cannot be used together with this function, ☛ see page 88.

Note

❒ You can add up to two preset ratios with the user tools. ☛ see page 159.

❒ You can select a ratio regardless of the size of an original or copy paper. With some ratios, parts of the image might not be copied or margins will appear on copies.

❒ To return to 100%, press the **[100%]** key.

Reducing

1. Press the **[Reduce/Enlarge]** key.

2. Make sure that the **[Preset R/E / Zoom]** key is selected.

3. Select the ratio you require.

4. Set your originals, then press the **[Start]** key.

Enlarging

1. Press the **[Reduce/Enlarge]** key.

2. Make sure that the **[Preset R/E / Zoom]** key is selected.

3. Select the ratio you require.

4. Set your originals, then press the **[Start]** key.

Zoom—Reducing and Enlarging in 1% Steps

GCZOOM1E

You can change the reproduction ratio from 25% to 400% in 1% steps.

Note

❒ You can select a ratio regardless of the size of an original or copy paper . With some ratios, parts of the image might not be copied or blank margins will appear on copies.

❒ To return to 100%, press the **[100%]** key.

❒ You can select a preset ratio which is near the desired ratio, then press the **[Zoom]** key and adjust the ratio with the **[+]** or **[–]** key.

❒ There are two ways to set the ratios.

Using the (–) and (+) keys

1. Press the **[Reduce/Enlarge]** key.

2. Make sure that the **[Preset R/E / Zoom]** key is selected.

3 Adjust the reproduction ratio with the **[+]** or **[–]** key.

4 Set your originals, then press the **[Start]** key.

Using the [Number] keys

1 Press the **[Reduce/Enlarge]** key.

2 Press the **[Input Ratio]** keys.

3 Enter the reproduction ratio with the **[Number]** keys.

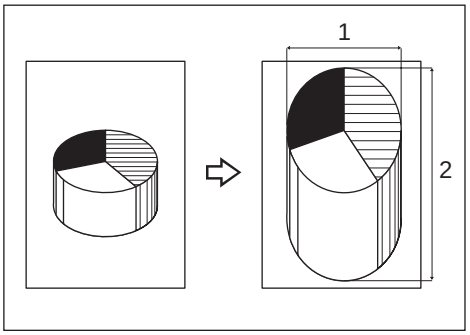
Note

❒ To change the ratio entered, press the **[Clear]** key and enter a new ratio.

4 Press the **[#]** key.

5 Set your originals, then press the **[Start]** key.

Directional Magnification (%)—Stretching and Squeezing the Image in 1% steps



1: Horizontal %
2: Vertical %

Copies can be reduced or enlarged at different reproduction ratios horizontally and vertically.

Note

❒ You can select a ratio from between 25% to 400%.

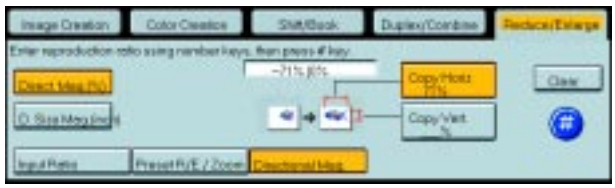
❒ You can select a ratio regardless of the size of an original or copy paper. With some ratio, parts of the image might not be copied or blank margins might appear on copies.

1 Press the **[Reduce/Enlarge]** key.

2 Press the **[Directional Mag.]** key.

3 Make sure that the **[Direct. Mag. (%)]** key is selected.

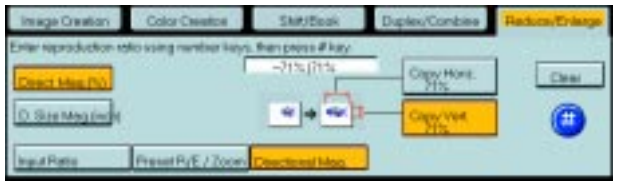
4 Enter the horizontal ratio with the **[Number]** keys, then press the **[#]** key.



Note

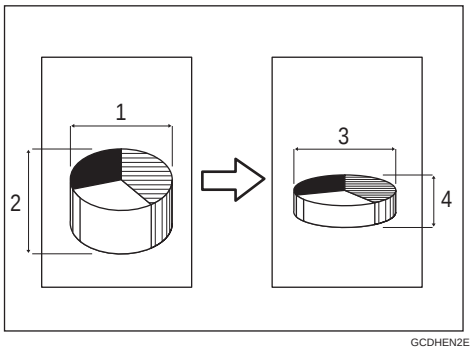
❒ To change the ratio entered, press the **[Clear]** key and enter a new ratio.

5 Enter the vertical ratio with the **[Number]** keys, then press the **[#]** key.



6 Set your originals, then press the **[Start]** keys.

Directional Size Magnification (inch)—Stretching and Squeezing the Image into the Copy Area



GCDHEN2E

1: Horizontal original size
2: Vertical original size
3: Horizontal copy size
4: Vertical copy size

The suitable reproduction ratios will be automatically selected when you enter the horizontal and vertical lengths of the original and copy image you require.

Note

❒ You can enter sizes within the following ranges:

Metric Version	1 - 999mm (in 1mm steps)
Inch Version	0.1" - 99.9" (in 0.1" steps)

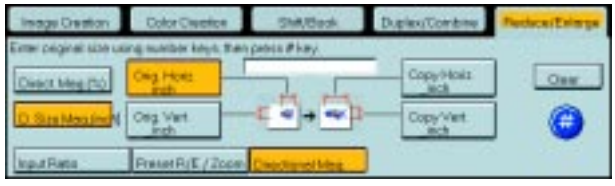
❒ If the calculated ratio is over the maximum or under the minimum ratio, it is corrected within the range of the ratio automatically. However, with some ratios, parts of the image might not be copied or blank margins might appear on copies.

1 Press the **[Reduce/Enlarge]** key.

2 Press the **[Directional Mag.]** key.

3 Press the **[D. Size Mag. (inch)]** key.

4 Enter the horizontal original size with the **[Number]** keys, then press the **[#]** key.

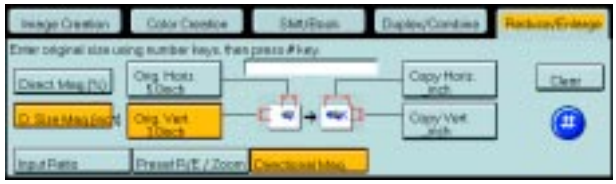


Note

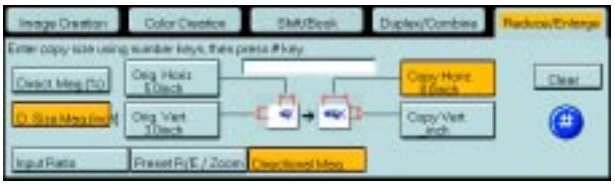
❒ To change the value entered:

- If you have not pressed the **[#]** key yet, press the **[Clear]** key and enter a new value.
- If you have already pressed the **[#]** key, select the specified key and enter the a value.

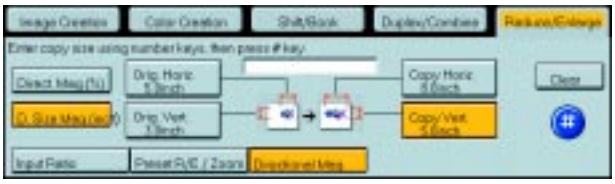
5 Enter the horizontal copy paper size with the **[Number]** keys, then press the **[#]** key.



6 Enter the vertical original size with the **[Number]** keys, then press the **[#]** key.



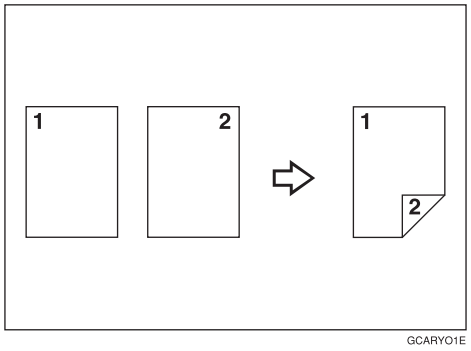
7 Enter the vertical copy paper size with the **[Number]** keys, then press the **[#]** key.



8 Set your originals, then press the **[Start]** key.

Duplex—Making 2 Sided Copies

1 Sided → 2 Sided—Making Two-sided Copies from One-sided Originals



This function makes 2 one-sided originals onto two-sided copy.

Limitation

❒ You cannot use the following copy paper in this function:

- Paper smaller than A5, 5 1/2" x 8 1/2"
- Translucent paper
- Adhesive labels
- OHP transparencies
- Post cards

Note

❒ The following paper limitations apply:

Metric version

	Single color	Full color
Paper weight	64 - 105g/m^2	
Copy Number Input	B4 or smaller: 50 sheets	A3 - A5: 20 sheets
	A3: 30 sheets	

Inch version

	Single color	Full color
Paper weight	17 - 28 lbs	
Copy Number Input	8 1/2" x 14" or smaller: 50 sheets	11" x 17" - 5 1/2" x 8 1/2": 20 sheets
	11" x 17": 30 sheets	

Note

❒ The image on the back-side of copies is shifted by just the binding margin.

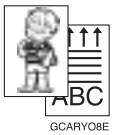
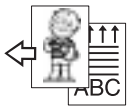
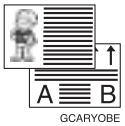
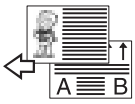
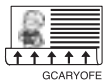
❒ You can change the width and position of the binding area.

❒ You can change the default binding margin and width.

Reference

For functions that cannot be used together with this function, ☛ see page 88.

The resulting copy image will differ according to the direction in which you set your original (lengthwise ▯ or widthwise ▭).

Originals	Orientation	Result*1
 GCARYO8E	 GCARYO7E	GCARYO6E
	GCARYO9E	GCARYOAE
 GCARYO8E	 GCARYOCE	GCARYOEE
	GCARYODE	 GCARYOFE

*1 The illustrations show the directions of copied images on the front and back, not the directions of delivery.

1 Press the **[Duplex/Combine]** key.

2 Press the **[1 Sided → 2 Sided]** key.

3 Press the **[Even]** key or the **[Odd]** key according to the number of your originals.

Note

❒ When you set the odd originals, back side of the last page is blank.

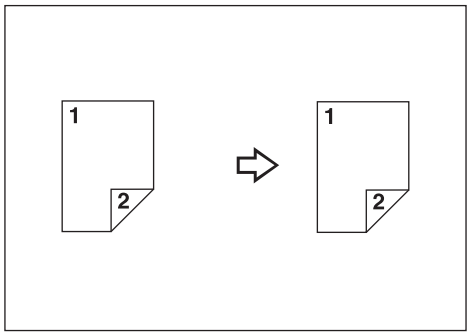
❒ If you don't know the total number of originals, press the **[Auto Count]** key, then press the **[Start Count]** key.

The optional document feeder is required to use Auto Count function.

4 Press the **[OK]** key.

5 Set your originals in the document feeder, then press the **[Start]** key.

2 Sided → 2 Sided—Making Two-sided Copies from Two-sided Originals



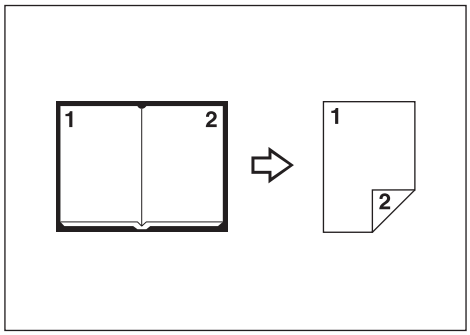
This function makes two-sided originals onto 2-sided copy.

1 Press the **[Duplex/Combine]** key.

2 Press the **[2 Sided → 2 Sided]** key.

3 Set your originals in the document feeder, then press the **[Start]** key .

Book → 2 Sided—Making Two-Sided Copies from Facing Pages of a Bound Original



GCARYO3E

Use this feature to copy facing pages of a book or magazine onto both sides of the copy paper.

Note

❒ Select the lengthwise ▯ copy paper.

❒ Refer to the following table when you select original and copy paper sizes with 100% ratio:

Metric version

Original	Copy Paper
A3 ▭	A4 ▯ (2 sided)
B4 ▭	B5 ▯ (2 sided)
A4 ▭	A5 ▯ (2 sided)

Inch version

Original	Copy Paper
11" × 17" ▭	8 1/2" × 11" ▯ (2 sided)
8 1/2" × 11" ▭	5 1/2" × 8 1/2" ▯ (2 sided)

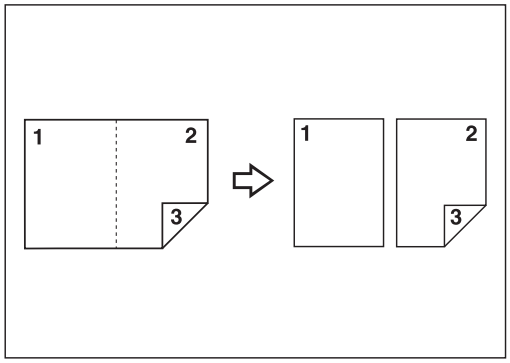
1 Press the **[Duplex/Combine]** key.

2 Select the lengthwise ▯ copy paper.

3 Press the **[Book → 2 Sided]** key.

4 Set your original on the exposure glass, then press the **[Start]** key.

Multi → 2 Sided—Making Two-sided Copies from a Book



GCARYO4E

This function copies three sides of a pamphlet to one single-sided copy and one double-sided copy.

Note

❒ Refer to the following table when you select original and copy paper sizes with 100% ratio:

Metric version

Original	Copy Paper
A3 ▭	A4 ▯ (2 sided)
B4 ▭	B5 ▯ (2 sided)
A4 ▭	A5 ▯ (2 sided)

Inch version

Original	Copy Paper
11" × 17" ▭	8 1/2" × 11" ▯ (2 sided)
8 1/2" × 11" ▭	5 1/2" × 8 1/2" ▯ (2 sided)

1 Press the **[Duplex/Combine]** key.

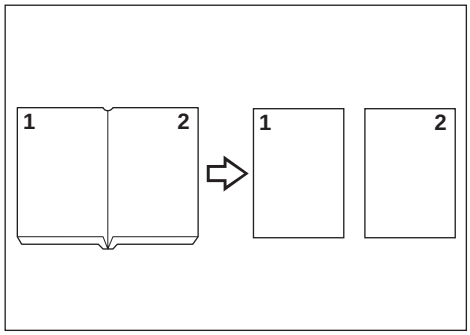
2 Select the lengthwise ▯ copy paper.

3 Press the **[Multi → 2 Sided]** key.

4 Set your originals in the document feeder, then press the **[Start]** key.

Series Copies—Making Single Copies

Book → 1 Sided—Fr om Book Originals to 2 One-sided Copies



GCSEPR1E

This function makes one-sided copies from two facing pages of bound (book) originals.

Reference

For functions that cannot be used together with this function, ☛ see page 88.

Note

❒ Refer to the following table when you select original and copy paper sizes with 100% ratio:

Metric version

Original	Copy Paper
A3 ▭	A4 ▯ × 2 sheets
B4 ▭	B5 ▯ × 2 sheets
A4 ▭	A5 ▯ × 2 sheets

Inch version

Original	Copy Paper
11" × 17" ▭	8 1/2" × 11" ▯ × 2 sheets
8 1/2" × 11" ▭	5 1/2" × 8 1/2" ▯ × 2 sheets

1 Press the **[Duplex/Combine]** key.

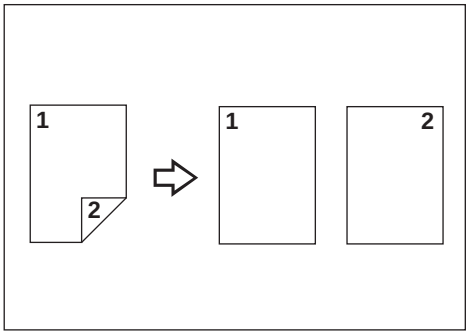
2 Select the lengthwise ▯ copy paper.

3 Press the **[Book → 1 Sided]** key.

4 Set your originals, then press the **[Start]** key.

2 Sided → 1 Sided—From Two-sided Originals to 2 One-sided Copies

The optional document feeder is required to use this function.



GCSEPR2E

Reference

For functions that cannot be used together with this function, ☛ see page 88.

1 Press the **[Duplex/Combine]** key.

2 Select the lengthwise copy paper.

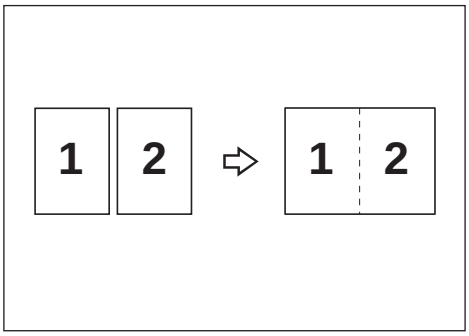
3 Press the **[2 Sided → 1 Sided]** key.

4 Set your originals in the document feeder, then press the **[Start]** key.

Combine

Combine 2 Originals—Combining 2 Originals

The optional document feeder is required to use this function.



GCSYYK1E

This function automatically combines 2 one-sided originals onto one copy.

Note

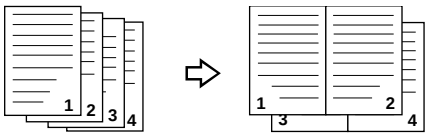
❒ The machine cannot copy originals different in size and direction.

Reference

For functions that cannot be used together with this function, ☛ see page 88.

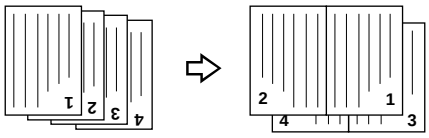
Setting Originals (Originals set in the document feeder)

- Originals reading from left to right



- Originals reading from top to bottom

Combine5



Combine6

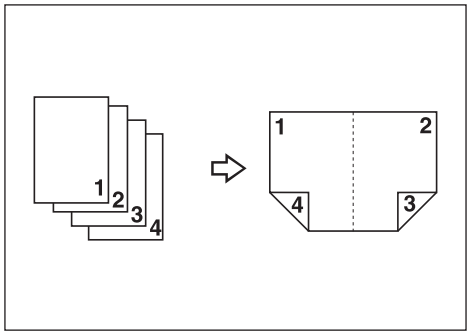
1 Press the **[Duplex/Combine]** key.

2 Select the widthwise ▭ copy paper.

3 Press the **[Combine 2 originals]** key.

4 Set your originals in the document feeder, then press the **[Start]** key.

Combine 4 Originals—Combining 4 Originals



GCARYO5E

Reference

For functions that cannot be used together with this function, ☛ see page 88.

1 Press the **[Duplex/Combine]** key.

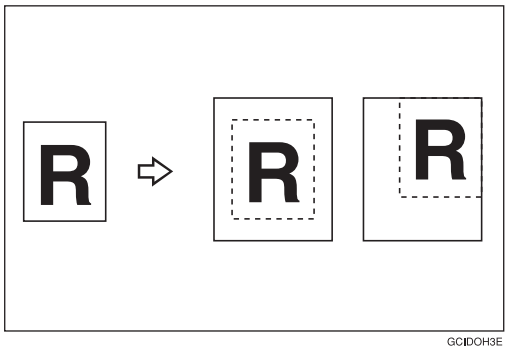
2 Select the widthwise ▭ copy paper.

3 Press the **[Combine 4 originals]** key.

4 Set your originals in the document feeder, then press the **[Start]** key.

Shift—Shifting the Image

Shift—Centering/Cornering the Image



GCIDOH3E

You can move the image to a corner or edge as well as center it. This function is useful when the copy paper is larger than the original.

Note

❑ You cannot use 12" × 18" size copy paper for this function.

1. Press the **[Shift/Book]** key.
2. Press the **[Shift]** key.

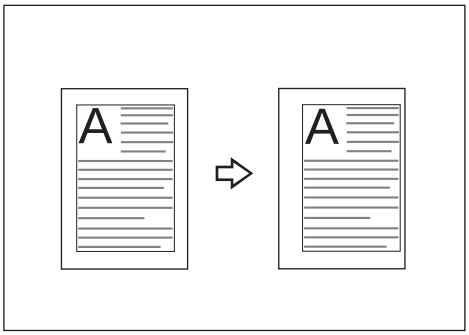
3. Select the direction in which you want to shift the image.

Note

❒ When you want to center the image, press the **[Center]** key.

4. Press the **[OK]** key.
5. Select the copy paper size.
6. Set your originals, then press the **[Start]** key.

Margin Adjustment—Adding Margins for Binding



You can make a margin by shifting the image to the left or right. This function is useful when you want to bind copies.

Note

❒ You can change the width of the binding margin as follows:

Metric Version	0 - 20mm (in 1mm steps)
Inch Version	0" - 0.8" (in 0.1" steps)

❒ The margin width default is as follows. You can change this default setting with the user tools. ☛ see page 159.

Metric Version	• Front: 0mm Left • Back: 0mm Right
Inch Version	• Front: 0" Left • Back: 0" Right

❒ If you set too wide a margin, areas you do not want to delete might be erased.

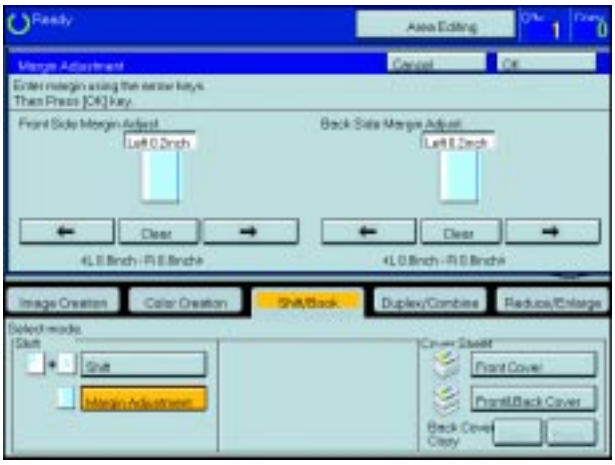
Reference

For functions that cannot be used together with this function, ☛ see page 88.

1 Press the **[Shift/Book]** key.

2 Press the **[Margin Adjustment]** key.

3 Set the margins on the front side and back side of copy paper.



Note

- To change the value entered, press the **[Clear]** key and enter a new value.
- To make a left margin, press the **[→]** key until the number displayed reaches the required setting.
- To make a right margin, press the **[←]** key until the number displayed reaches the required setting.

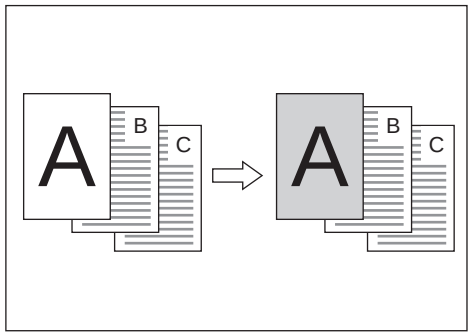
4 Press the **[OK]** key.

5 Set your originals, then press the **[Start]** key.

Cover Sheet—Adding or Inserting Sheets

Front Cover—Copying a Front Cover

The optional document feeder is required to use this function.



GCHYOS1E

Note

❒ The cover sheets should be identical in size and direction with the copy paper.

❒ The cover sheets should be fed from the bypass tray.

❒ The covers are copied in Thick mode.

Reference

For functions that cannot be used together with this function, ☞ see page 88.

When you use Front Cover mode with 1 Sided → 1 Sided mode

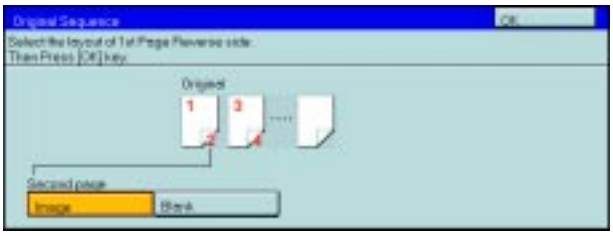
1. Press the **[Shift/Book]** key.

2. Press the **[Front Cover]** key.

3. Set your originals in the document feeder, then press the **[Start]** key.

When you use Front Cover mode with 2 Sided → 1 Sided or 2 Sided → 2 Sided mode

1. Enter 2 Sided→1 Sided or 2 Sided→2 Sided mode. ☛ see page 68 or 64.
2. Follow the steps 1 to 2 on page 74.
3. Select **[Image]** or **[Blank]** key depending on the reverse side of first original has an image or not.

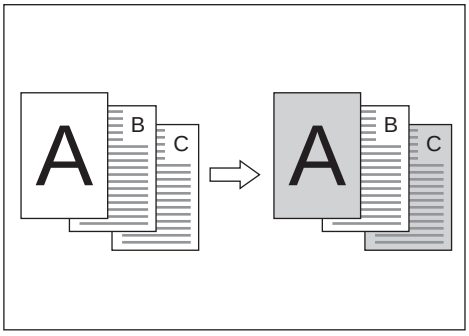


4. Press the **[OK]** key.
5. Set your originals in the document feeder, then press the **[Start]** key.

Front & Back Cover—Copying or Adding Front and Back Covers

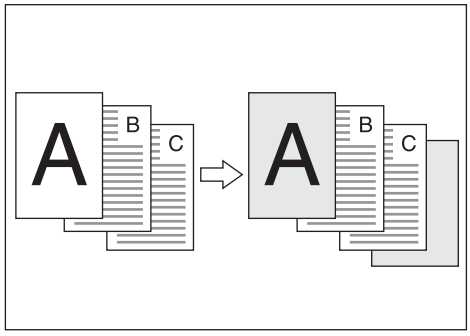
The optional document feeder is required to use this function.

<Back Cover: Copy>



GCHYOS3E

<Back Cover: Blank>



GCHYOS2E

Note

❒ You can specify whether to make a copy on a back cover sheet. If you select **[Copy]**, the last pages will be copied on the back cover sheets. If you select **[Blank]**, a cover sheet will just be inserted after the last copy.

❒ The cover sheets should be identical in size and direction to the copy paper.

❒ The cover sheets should be fed from the bypass tray.

❒ The covers are copied in Thick mode.

❒ If Blank Cover mode is selected, the back cover will not be counted as a copy.

Reference

For functions that cannot be used together with this function, ☛ see page 88.

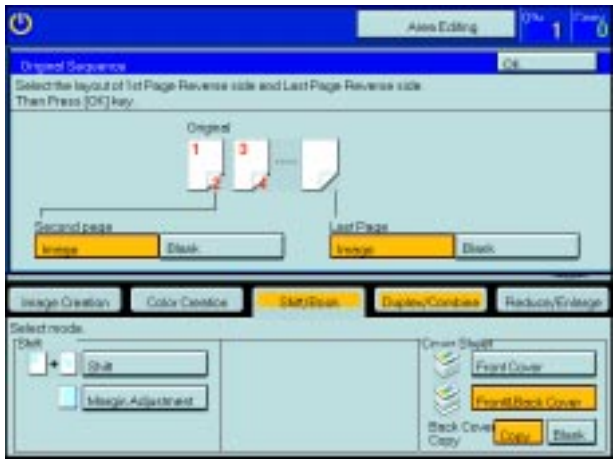
When you use Front & Back covers mode with 1 Sided → 1 Sided mode

1. Press the **[Shift/Book]** key.
2. Press the **[Front & Back Cover]** key.

3. Select the **[Copy]** or **[Blank]** key to choose whether to copy onto the back cover.
4. Set your originals in the document feeder.
5. Press the **[Start]** key.

When you use Front & Back covers mode with 2 Sided → 1 Sided or 2 Sided → 2 Sided mode

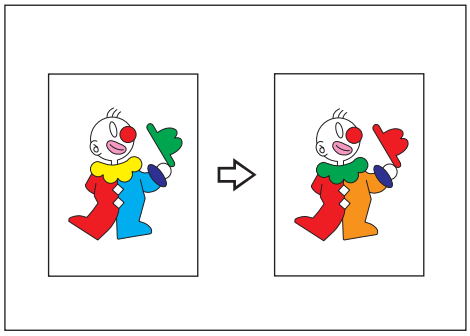
1. Enter 2 Sided→1 Sided or 2 Sided→2 Sided mode. ☞ see page 68 or 64.
2. Follow the steps 1 to 3 on above.
3. Select **[Image]** or **[Blank]** key depending on the reverse side of first original has an image or not.



4. Select **[Image]** or **[Blank]** key depending on the reverse side of last original has an image or not.
5. Press the **[OK]** key.
6. Follow the steps 4 and 5.

Color Creation

Color Conversion—Converting a Selected Color into a Different Color


GCCLPRAE

This function converts a selected color of an original into a different color on the copy.

Reference

For copy samples, ☛ see page 16.

Note

❒ Up to 4 colors can be converted at one time.

❒ Colors you can convert to:

Yellow, Red, Magenta, Green, Cyan, Blue, Black and White

❒ Colors that can be used after conversion:

Yellow, Orange, Red, Magenta, Green, Cyan, Blue, Yellow Green, Black, White, Beige, Pink, Marine Blue, Purple and User colors

❒ This function can be made more or less sensitive to the color to be converted. It can be adjusted within five levels from “Narrow” to “Wide”. ☛ see page 161.
For example, if red is selected as the color to be converted, “Narrow” will result in only red being converted, and “Wide” will result in other colors close to red being converted.

❒ This function can be used in Full Color mode.

1 Press the **[Color Creation]** key.

2 Press the **[Color Conversion]** key.

3 Select the original color (color to be converted).

4 Select the new color (color to convert to).

5 If you want to convert more than one color, repeat steps 3 and 4.

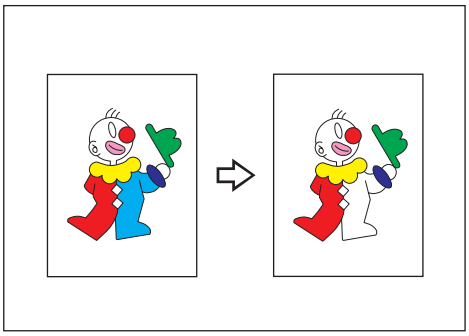
Note

❒ If you pick the wrong color, press the **[Clear]** key.

6 Press the **[OK]** key.

7 Set your originals, then press the **[Start]** key.

Color Erase—Erasing the Selected Color



GCCLPR2E

This function erases a selected color from the original image.

Reference

For copy samples, ☛ see page 16.

Note

❒ Up to 4 colors can be erased at one time.

❒ Colors that can be erased:

Yellow, Red, Magenta, Green, Cyan, Blue and Black

❒ This function can be made more or less sensitive to the color to be erased. It can be adjusted within five levels from "Narrow" to "Wide". ☛ see page 161.
For example, if red is selected as the color to be converted, "Narrow" will result in only red being erased, and "Wide" will result in other colors close to red being erased.

1. Press the **[Color Creation]** key.

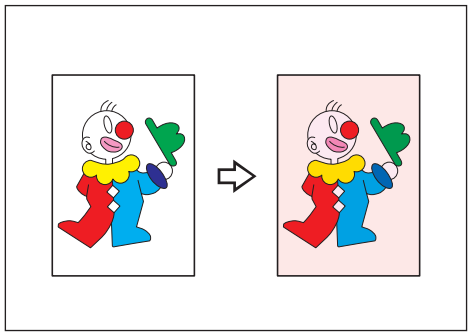
2. Press the **[Color Erase]** key.

3. Select the color to be erased.

4. Press the **[OK]** key

5. Set your originals, then press the **[Start]** key.

Color Background—Making Copy with Color Background



GCCLPR3E

This function makes copies with a selected color background.

Reference

For copy samples, ☛ see page 16.

Note

❒ Colors that can be selected as a background color:

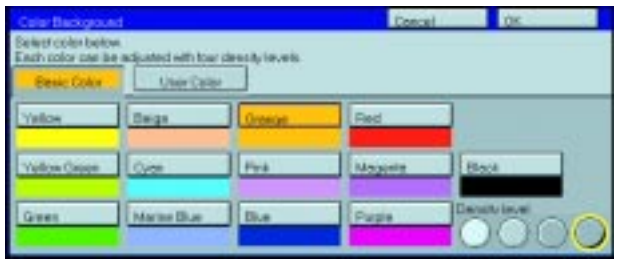
Yellow, Orange, Red, Magenta, Green, Cyan, Blue, Yellow Green, Black, Beige, Pink, Marine Blue, Purple and User Colors

❒ In this mode, color tones of photo or picture in originals might be changed due to the color on the background.

1. Press the **[Color Creation]** key.

2. Press the **[Color Background]** key.

3. Select the color for background.



Note

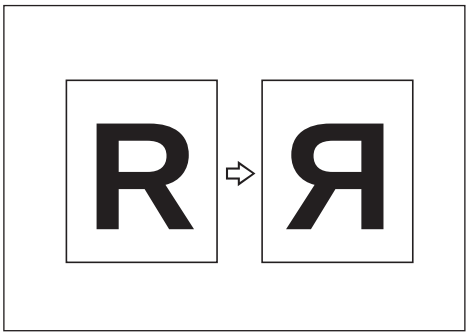
❑ You can select the color density level.

4. Press the **[OK]** key.

5. Set your originals, then press the **[Start]** key.

Image Creation

Mirror Image—Making a Mirror Image

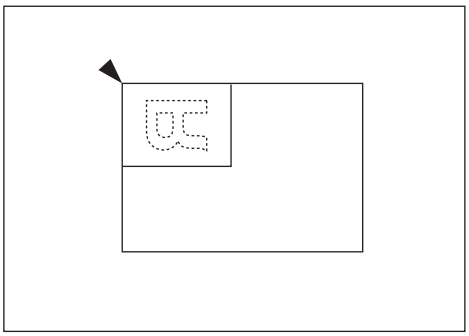


GCMILL1E

This function makes a mirror image copy of the original.

Note

❒ Set the original as below when setting on the exposure glass (platen glass).

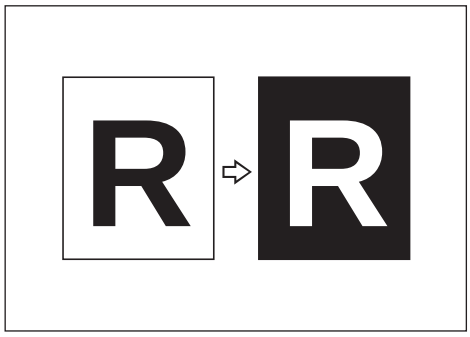


GCMILL2E

1. Press the **[Image Creation]** key.
2. Press the **[Mirror Image]** key.

3. Set your originals, then press the **[Start]** key.

Positive/Negative—Copying in Complementary Colors



GCHATN1E

This function copies the original image in complementary colors. If you use a black and white original, black and white areas of the original are reversed.

Note

❒ If you copy using twin color mode, white areas are changed to black, black areas are changed to white, and color areas are changed to the selected color.

1. Press the **[Image Creation]** key.

2. Press the **[Positive/Negative]** key.

3. Set your originals, then press the **[Start]** key.

Finishing

Note

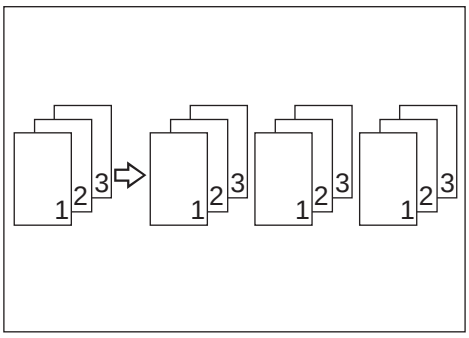
❒ To avoid problems caused by curled copies, try turning over the paper stack in the paper tray. If there is no improvement, change to copy paper with less curl.

Reference

For functions that cannot be used together with this function, ☛ see page 88.

Sort—Sorting into Sets (123, 123, 123)

The optional 20-bin sorter stapler, 10-bin sorter stapler or 3-bin sorter is required to use this function.



GCSORT1E

One copy of each original is delivered to each bin and copies are collated into sets.

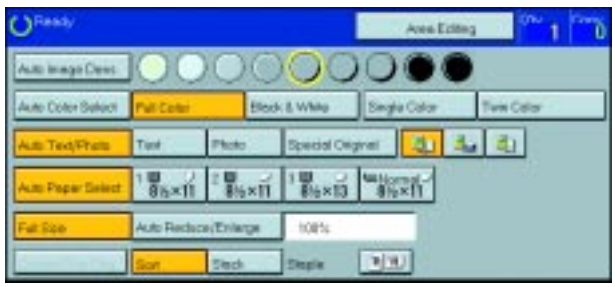
Note

❒ It is recommended to set originals in the document feeder with this function.
❒ For sorting, the following limitations apply:

	20-bin sorter stapler		10-bin sorter stapler	3-bin sorter	
	Normal paper mode	Thick mode		1st bin	2nd or 3rd bin
Maximum paper size	▭: A3, 12" × 18" ▯: A4, 8½" × 11"	▭: A3, 12" × 18" ▯: A4, 8½" × 11"	▭: A3, 11" × 17" ▯: A4, 8½" × 11"	▭: A3, 12" × 18" ▯: A4, 8½" × 11"	▭: A3, 12" × 18" ▯: A4, 8½" × 11"
Minimum paper size	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:A6, 5½" × 8½" ▯: A5, 8½" × 11"	▭:A6, 5½" × 8½" ▯: A5, 8½" × 11"
Maximum paper capacity of bins (80g/m², 20 lb)	A4, 8½" × 11" or smaller: 30 sheets B4, 8" × 13" or larger: 25 sheets	A4, 8½" × 11" or smaller: 15 sheets B4, 8" × 13" or larger: 12 sheets	A4, 8½" × 11" or smaller: 30 sheets B4, 8" × 13" or larger: 25 sheets	A4, 8½" × 11" or smaller: 500 sheets B4, 8" × 13" or larger: 250 sheets	A4, 8½" × 11" or smaller: 250 sheets B4, 8" × 13" or larger: 125 sheets

❒ When you have 3-bin sorter or 10-bin sorter stapler, you cannot use thick paper fed from the bypass tray in Sort mode.
❒ When you have 10-bin sorter stapler, 12" × 18" size paper cannot be used.
❒ You cannot use OHP transparencies or custom size paper in Sort mode.
❒ You can make the machine select Sort mode automatically when you insert two or more originals in the document feeder and make two or more copies from each original with the user tools. ☛ see page 162.

1 Press the **[Sort]** key.

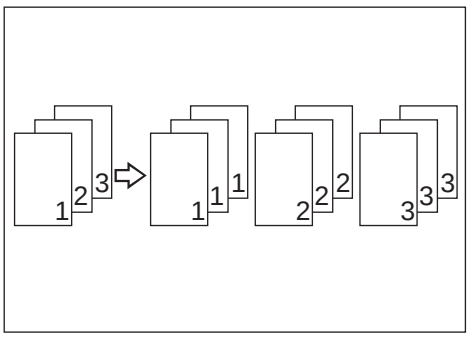


2 Set your originals in the document feeder.

3 Press the **[Start]** key.

Stack—Stacking together all Copies of a Page (111, 222, 333)

The optional 20-bin sorter stapler, 10-bin sorter stapler or 3-bin sorter is required to use this function.



GCSORT2E

All copies of each original are delivered to the same bin.

❒ For stacking, the following limitations apply:

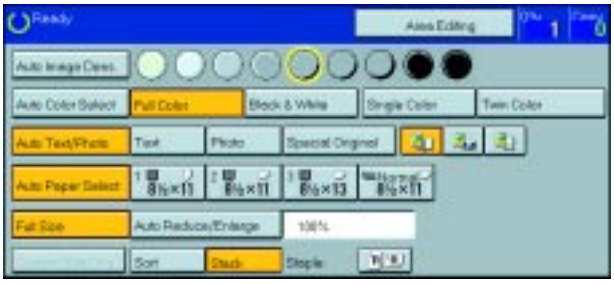
	20-bin sorter stapler		10-bin sorter stapler	3-bin sorter	
	Normal paper mode	Thick mode		1st bin	2nd or 3rd bin
Maximum paper size	▭:A3, 12" × 18" ▯: A4, 8½" × 11"	▭:A3, 12" × 18" ▯: A4, 8½" × 11"	▭:A3, 11" × 17" ▯: A4, 8½" × 11"	▭:A3, 12" × 18" ▯: A4, 8½" × 11"	▭:A3, 12" × 18" ▯: A4, 8½" × 11"
Minimum paper size	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:A6, 5½" × 8½" ▯: A5, 8½" × 11"	▭:A6, 5½" × 8½" ▯: A5, 8½" × 11"
Maximum paper capacity of bins (80g/m², 20 lb)	A4, 8½" × 11" or smaller: 25 sheets B4, 8" × 13" or larger: 20 sheets	A4, 8½" × 11" or smaller: 12 sheets B4, 8" × 13" or larger: 10 sheets	A4, 8½" × 11" or smaller: 25 sheets B4, 8" × 13" or larger: 20 sheets	A4, 8½" × 11" or smaller: 500 sheets B4, 8" × 13" or larger: 250 sheets	A4, 8½" × 11" or smaller: 250 sheets B4, 8" × 13" or larger: 125 sheets

❒ When you have 3-bin sorter or 10-bin sorter stapler, you cannot use thick paper fed from the bypass tray in Stack mode.

❒ When you have 10-bin sorter stapler, 12" × 18" size paper cannot be used.

❒ You cannot use OHP transparencies or custom size paper in Stack mode.

1 Press the **[Stack]** key.

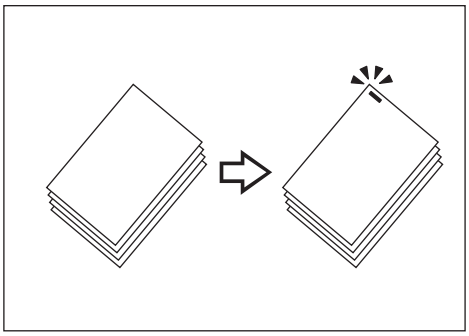


2 Set your originals in the document feeder.

3 Press the **[Start]** key.

Staple—Stapling Copies

The optional 20-bin sorter stapler, 10-bin sorter stapler is required to use this function.



GCSORT3E

Each copy set can be stapled together.

Note

❒ When you select Staple mode, Sort mode is automatically selected.

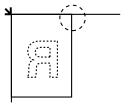
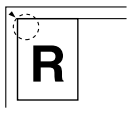
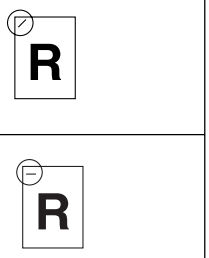
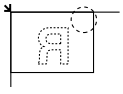
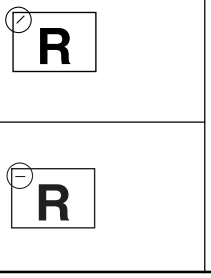
❒ You cannot use Staple mode with Stack mode.

❒ When you have 10-bin sorter stapler, you cannot use thick paper fed from the bypass tray in Staple mode.

❒ You cannot use OHP transparencies or custom size paper in Staple mode.

❒ You cannot staple different widths of paper.

❒ Stapling position and original setting:

Original setting			Stapling position	
	Exposure glass	Ducument feeder	20-bin sorter stapler	10-bin sorter stapler
				
				

❒ For Stapling, the following limitations apply:

	20-bin sorter stapler		10-bin sorter stapler
	Normal paper mode	Thick paper mode	
Maximum paper size	▭:A3, 11" × 17" ▯: A4, 8½" × 11"	▭:A3, 11" × 17" ▯: A4, 8½" × 11"	▭:A3, 11" × 17" ▯: A4, 8½" × 11"
Minimum paper size	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"	▭:B5, 8½" × 11" ▯: B5, 8½" × 11"
Stapler capacity (80g/m², 20 lb)	20 sheets	10 sheets	20 sheets

Reference

If you want to add staples, ☛ see page 143.

When the stapler is jammed, ☛ see page 144.

Changing the staple position

If your machine is equipped with the 20-bin sorter stapler, you can select one of two stapling positions by changing the position of the stapler. Open the front cover of the sorter stapler and perform the actions illustrated below.

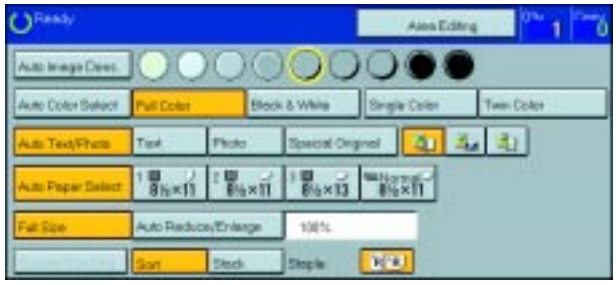
Note

❒ After changing the position of the stapler, the stapler should be clicked in position.

Stapling copies automatically after copying

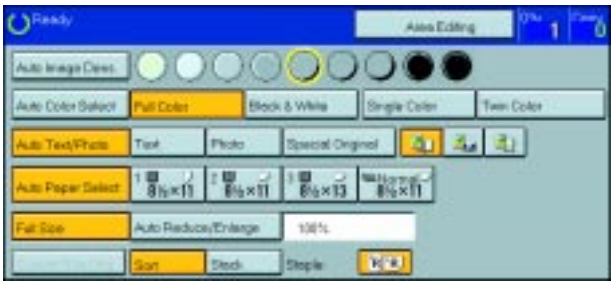
The optional document feeder is required to use this function.

1. Press the [ ] key.
2. Set your originals in the document feeder.
3. Press the **[Start]** key.



Stapling copies manually after copying

1 After sort mode copying is completed, press the key.



Combination Chart

☆ Those modes can be used together.
★ Those modes can be used together with some limitations.
→ The original mode is overridden and the newly selected mode is active.
✕ These modes cannot be used together.

*1 20-bin sorter stapler.☆
10-bin sorter stapler.✕
*2 20-bin sorter stapler.→
10-bin sorter stapler.✕

Original Mode \ Newly Selected Mode				Auto Image Density	Manual Image Density	Auto Color Select	Full Color	Black & White	Single Color	Twin Color	Auto Text/Photo	Text	Photo	Special Original	Photo Type Selection	Auto Paper Select
Image Desnsity	Auto Image Density				☆	→	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Manual Image Density			☆		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Color Mode	Auto Color Select			✕	☆		→	→	→	→	☆	☆	☆	☆	☆	✕
	Full Color			☆	☆	→		→	→	→	☆	☆	☆	☆	☆	☆
	Black & White			☆	☆	→	→		→	→	☆	☆	☆	☆	☆	✕
	Single Color			☆	☆	→	→	→		→	☆	☆	☆	☆	☆	✕
	Twin Color			☆	☆	→	→	→	→		☆	☆	☆	☆	☆	✕
Original Image Type	Auto Text/Photo			☆	☆	☆	☆	☆	☆	☆		→	→	→	☆	☆
	Text			☆	☆	☆	☆	☆	☆	☆	→		→	→	✕	☆
	Photo			☆	☆	☆	☆	☆	☆	☆	→	→		→	☆	☆
	Special Original			☆	☆	☆	☆	☆	☆	☆	→	→	→		✕	☆
Paper Selection	Auto Paper Select			☆	☆	✕	☆	✕	✕	✕	☆	☆	☆	☆	☆	
	Copying from Paper Trays			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
	Bypass Feed Copying	Standard size paper	Normal	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
			Thick	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
			OHP	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
			OHP Slip Sheet	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
		Custom size paper	Normal	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
			Thick	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
		A3 Fullbleed Copying		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
Duplex Back				☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
Auto Reduce/Enlarge				☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
Custom Size Original				☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕
Finishing	Sort			☆	☆	★	★	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Stack			☆	☆	★	★	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Staple			☆	☆	★	★	☆	☆	☆	☆	☆	☆	☆	☆	☆
Color Creation	Color Conversion			☆	☆	✕	☆	✕	✕	✕	☆	☆	☆	☆	☆	☆
	Color Erase			☆	☆	✕	☆	☆	☆	✕	☆	☆	☆	☆	☆	☆
	Color Background			☆	☆	✕	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Image Creation	Mirror Image			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Positive/Negative			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Reduce/Enlarge	Preset Reduce/Enlarge			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Zoom			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Directional Magnification (%)			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Directional Size Magnification (inch)			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Shift/Book	Margin Adjustment			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Centering/Cornering			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕
	Cover Sheet			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Duplex/Combine	Series	Book→1 Sided		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕
		2 Side→1 Sided		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Combine	Combine 2 originals		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕
		Combine 4 originals		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕
	Duplex	1 Sided→2 Sided		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
		2 Sided→2 Sided		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
		Book→2 Sided		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕
		Multi→2 Sided		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕
Program User Color				☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Image Adjustment	Soft/Sharp			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Contrast			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Background Density			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Pastel			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	U.C.R. Adjustment			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	A.C.S. Sensitivity			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Auto Text/Photo Sensitivity			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Color Adjustment				☆	☆	☆	☆	✕	✕	✕	☆	☆	☆	☆	☆	☆
Color Balance Adjustment				☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Program	After recalling your settings			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Interrupt Copying				☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Film Projector				✕	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	✕

Copying from Paper Trays
Standard size paper
Custom size paper
Bypass Feed Copying
Normal paper
Thick paper
OHP
OHP Slip Sheet
A3 Fullbleed Copying
Duplex Back
Auto Reduce/Enlarge
Custom Size Original
Sort
Stack
Auto Staple
Manual Staple
Color Conversion
Color Erase
Color Background
Mirror Image
Positive/Negative
Preset Reduce/Enlarge
Zoom
Directional Magnification (%)
Directional Size Magnification (inch)
Margin Adjustment
Centering/Cornering
Cover Sheet
Book→1 Sided
2 Sided→1 Sided
Combine 2 originals
Combine 4 originals
1 Sided→2 Sided
2 Sided→2 Sided
Book→2 Sided
Multi→2 Sided
Program User Color
Image Adjustment
Color Adjustment
Color Balance Adjustment
Program
Interrupt Copying
Film Projector

Adjustment and Color Memory

Color Balance—Adjusting and Storing the Color Balance

This function allows you to control the overall color tone of copies by adjusting the Yellow, Magenta, Cyan and Black color balance. Nine levels of tone are available.

Reference

For copy sample, ☛ see page 18.

Note

❒ The color balance will return to the default when:

- The machine is automatically reset.
- The **【Clear Modes】** key is pressed.
- The operation switch is turned off.
- The main power switch is turned off.

❒ You can store and adjustments you make in memory and recall them later.

Color Balance Adjustment

1 Press the **【Adjustment】** key.

2 Make sure that the **[Color Balance]** key is selected.

3 Adjust the color balance, then press the **[OK]** key.

Color Balance Program—Storing and Recalling the Color Balance

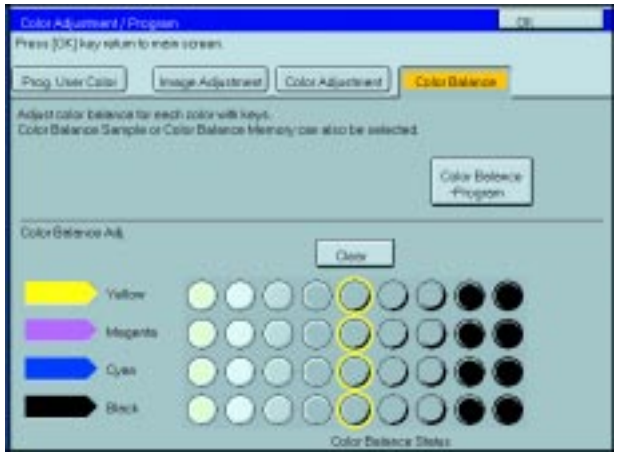
You can store the color balance setting in memory and recall it when you want to use it.

Note

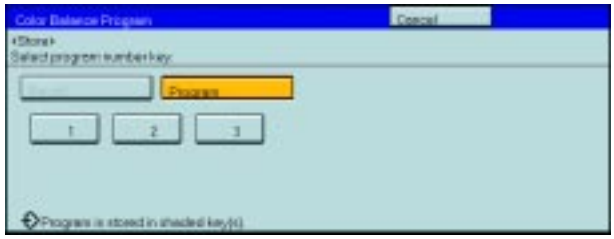
❒ You can store up to three color balance.

Storing the adjusted color balance

1. Change the color balance (☛ see page 92), but don't press the **[OK]** key.
2. Press the **[Color Balance Program]** key.



3. Press the **[Program]** key.
4. Select a number for this setting.



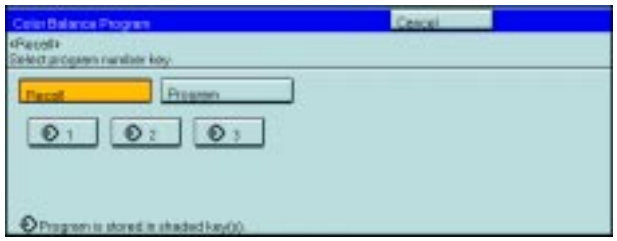
Recalling the color balance

1. Press the **[Adjustment]** key.
2. Make sure that the **[Color Balance]** key is selected.

3 Press the **[Color Balance Program]** key.

4 Make sure that the **[Recall]** key is selected.

5 Select the setting you want to recall.



Note

❒ Only color balance programs with ➔ contain a color balance.

Color Adjustment

This function lets you alter up to three single colors by mixing them with adjacent colors in the color circle. For example, yellow can be shifted towards red to make orange, or towards green to make a yellow green. Note that only areas of the image containing this color will be modified.

Reference

For copy samples, ☛ see page 19.

Note

❒ This function requires Full Color mode or Auto Color Select mode.

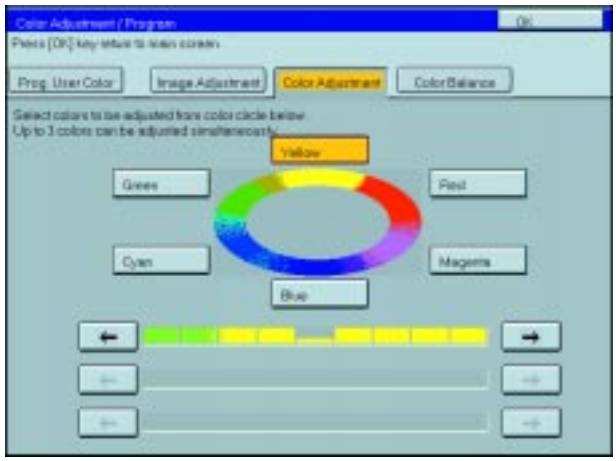
❒ The single color adjustment will return to the default when:

- The machine is automatically reset.
- The **[Clear Modes]** key is pressed.
- The operation switch is turned off.
- The main power switch is turned off.

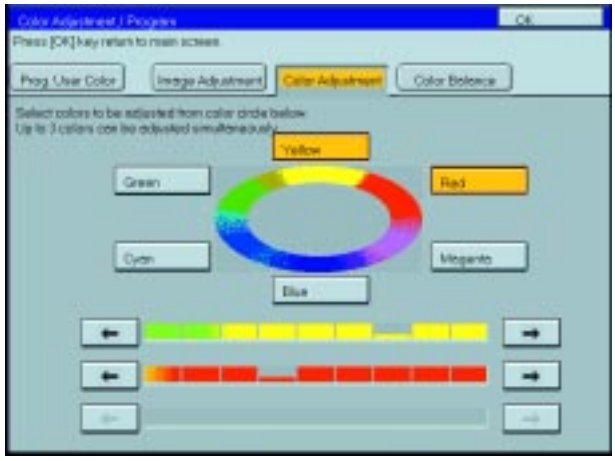
1 Press the **[Adjustment]** key.

2 Press the **[Color Adjustment]** key.

3 Select the color key that you want to adjust from the color circle.



4 Adjust the color with the keys.



Note

❒ For example, if you wish to make yellow appear more red, press the **[→]** key.

❒ If you wish to make yellow appear more green, press the **[←]** key.

5 Press the **[OK]** key.

Image Adjustment

You can change the following default settings for image adjustment:

Soft/Sharp	You can adjust the edges of the image to make the image sharper or softer. **Reference** ❒ For copy samples, ☛ see page 19. **Note** ❒ Default: level 4
Contrast	You can adjust the contrast between light parts and dark parts of the image. **Reference** ❒ For copy samples, ☛ see page 19. **Note** ❒ Default: level 5
Background Density	You can adjust the background density control. **Reference** ❒ For copy samples, ☛ see page 19. **Note** ❒ Default: level 5 ❒ If copying a newspaper or an original with a dark background, adjust the background density to a lighter setting. ❒ If part of the original is marked with a highlighting pen, adjust the background density to a darker setting. However, because the color of a highlighting pen is difficult to duplicate, it might be copied in different colors or some colors might not be copied.
Pastel	You can make copies in pastel tones. **Reference** ❒ For copy samples, ☛ see page 19. **Note** ❒ Default: level 9 which yields a normal color copy
U.C.R. Adjustment	You can adjust the black toner density to make the black parts clearer in Full Color mode. **Note** ❒ Default: level 5 ❒ Adjust this setting to a darker setting when you want to copy letter parts clearly in black. ❒ Adjust this setting to a lighter setting when the original image is dark.
A.C.S. (Auto Color Selection) Sensitivity	You can adjust the sensitivity when detecting whether the original has color areas in Auto Color Select mode. When set to “B&W” values, the machine will be more likely to detect originals as black originals. “Full Color” values will cause the machine to be more likely to detect originals as color originals. **Note** ❒ Default: level 3
Auto Text/Photo Sensitivity	You can adjust the sensitivity when detecting letter and photo parts of an original in Auto Text/Photo mode. If letter parts photo parts of an original are not differentiated correctly, adjust this setting. **Note** ❒ Default: level 5

Soft/Sharp, Contrast, Background Density, and Pastel

Note

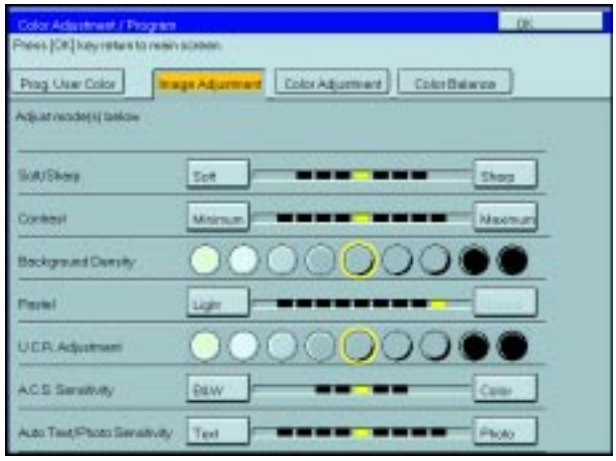
❒ Any settings you make with the Sharp/Soft, Contrast, Background Density and Pastel functions will be canceled under the following conditions:

- The machine is automatically reset.
- The **【Clear Modes】** key is pressed.
- The operation switch is turned off.
- The main power switch is turned off.

1 Press the **【Adjustment】** key.

2 Press the **[Image Adjustment]** key.

3 Adjust the settings.



Reference

For details, ☛ see page 96.

4 Press the **[OK]** key.

Note

❒ If you do not press the **[OK]** key, you can still make copies, but the Image Adjustment settings you have just entered will not used. However, any settings or featured you chose before pressing the **【Adjustment】** key will still apply.

U.C.R. Adjustment, A.C.S. Sensitivity and Auto Text/Photo Sensitivity

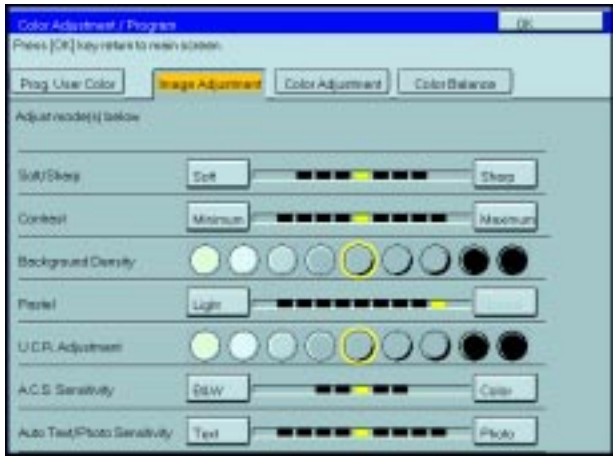
Note

❒ Any settings you make with the U.C.R. Adjustment, A.C.S. Sensitivity, and Auto Text/Photo Sensitivity functions are not cleared by turning the power off or by pressing the **【Clear Modes】** key. They are canceled only when you overwrite them with new settings.

1 Press the **【Adjustment】** key.

2 Press the **[Image Adjustment]** key.

3 Adjust the settings.



Reference

For details, ☛ see page 96.

4 Press the **[OK]** key.

Note

❒ If you do not press the **[OK]** key, you can still make copies, but the Image Adjustment settings you have just entered will not used. However, any settings or featured you choose before pressing the **【Adjustment】** key will still apply.

Program User Color—Storing User Colors

In addition to the base colors, you can store up to 15 customized colors into memory (User Color).

Reference

Color sample chart, ☛ see page 22.

If your machine is Edit type, you can sample the user color. ☛ see page 102.

Note

❒ There are two ways to make user colors as follows:

- Adjusting a selected base color
- Mixing colors manually with **【Number】** keys

❒ Up to 15 colors can be stored.

❒ The total percentages of the mixed colors must be 255% or less.

❒ If the total percentage of the mixed color is over 255%, the copier cannot create the color properly and the results will appear different.

❒ If the total percentage of the mixed colors is too low, it may not be bonded to the paper properly resulting in a change in image density.

❒ The appearance of user colors might vary slightly according to the image type you have selected (e.g. Photo, Text, etc.).

Adjusting Colors Based on the Selected Color

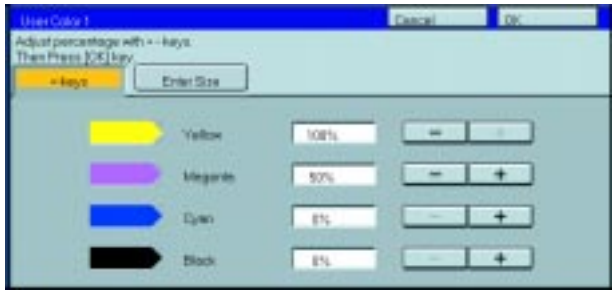
1 Press the **【Adjustment】** key.

2 Press the **[Prog. User Color]** key.

3 Select the key you wish to store the color in.

4 Select the base color.

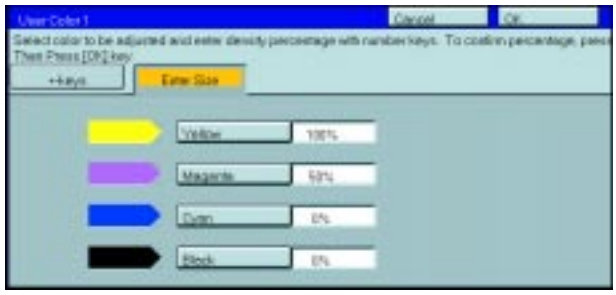
5 You can change the color density in two ways—press the [+ - keys] key.



Note

❒ Increase or decrease in steps with the **[+]**or **[-]** key.
——— Press the **[+ - keys]** key.

❒ Enter the percentage with the **【Number】** keys.
——— Press the **[Enter Size]** key.



6 Repeat step 5 for each color, then press the **[OK]** key.

7 Press the **[OK]** key.

Mixing Colors Manually with the Number Key

1 Press the **[Adjustment]** key.

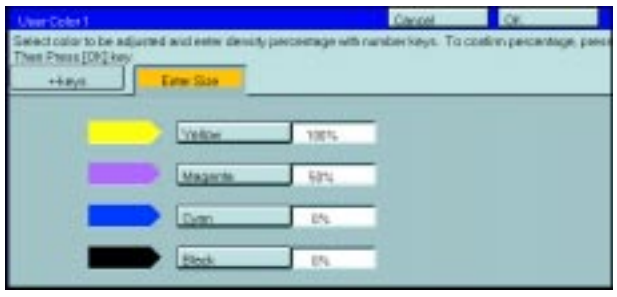
2 Press the **[Prog. User Color]** key.

3 Select the number that you want to store the user color in.

4 Press the **[Enter Size]** key.

5 Select the color that you want to adjust.

6 Enter the density with the **[Number]** keys, then press the **[#]** key.



Note

❒ To change the number, press the **[Clear]** key.

7 Repeat steps 5 and 6 for each color then press the **[OK]** key.

8 Press the **[OK]** key.

Sampling the User Color (Only for Edit Type)

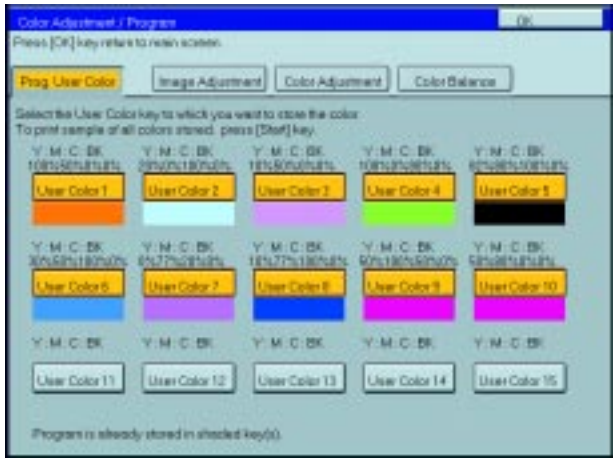
You can print out a sample of User Colors to check the colors you have made.

Note

❒ The sample will be copied on a A4□, 8 1/2" × 11" □ sheet or a A3□, 11" × 17"□ sheet.

1 Press the **[Adjustment]** key.

2 Press the **[Prog. User Color]** key.



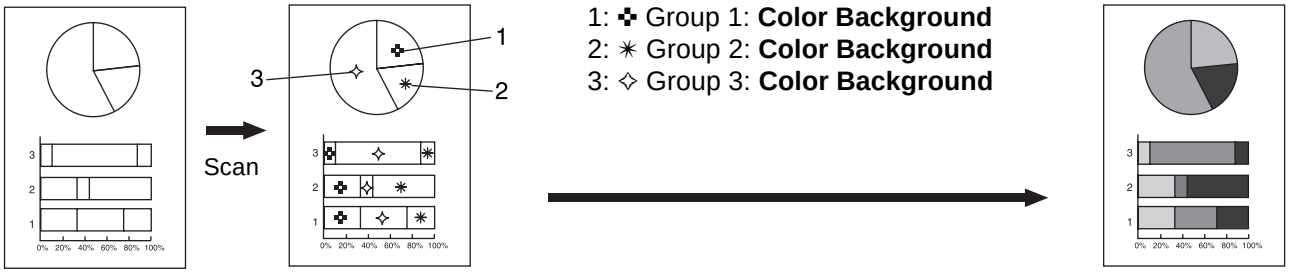
3 Press the **[Start]** key.

Area Editing (Only for Edit Type)

What is Area Editing?

If your machine is Edit Type, you can select areas of an image to be treated differently or have effects applied to them. An example is shown below.

Example:



Original

Designate areas
(There are 4 areas in each group.)

Specify modes for each group.

Copy

GCAREA1E

Note

❒ “Group” means a set of areas that you want to do the same edit.

How to Edit Areas

Editing an image involves scanning it in to memory, choosing areas to edit and how those areas will be reproduced.

The basic steps are summarized below. Details are given in the rest of this section.

❶ Enter Area Editing mode.

❒ Press the **[Area Editing]** key.

↓

❷ Designate areas.

❒ ☛ see page 106.

↓

❸ Select modes.

❒ ☛ see page 116.

↓

❹ Specify more areas to be treated differently (optional).

❒ Repeat 3 and 4.

↓

❺ Copy image.

❒ Press the **[Start]** key.

Designating Areas

Several tools are provided for designating areas of an image.

Area Shapes
- Rectangle: Specify two points defining the opposite diagonals of a rectangle.
- Right Angle Polygon/Polygon: Specify a sequence of points defining a polygon.
- Closed Loop: If your image contains a shape outlined in black and that outline forms a closed loop, specify a point inside the shape to designate it.
- Multi-Closed Loop: If your image contains a closed loop and that outline forms an another closed loop, specify points inside of the closed loop to designate it.

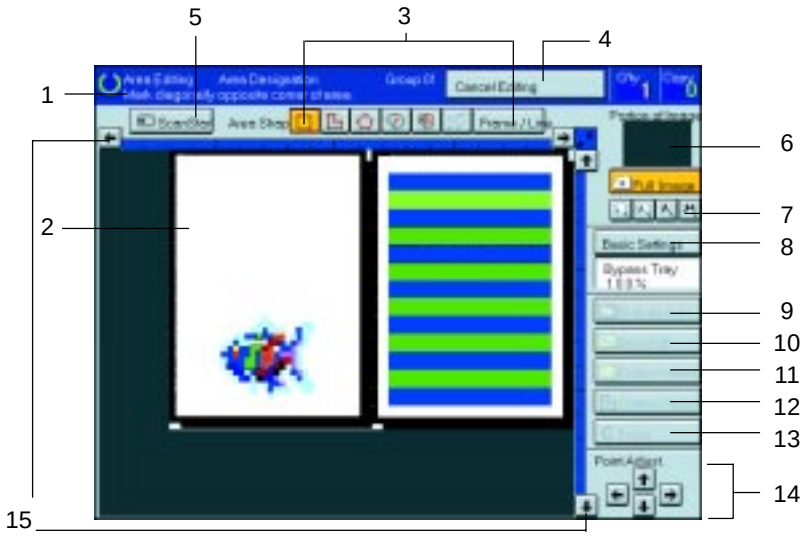
Frame/Line
- Rectangle frame: Specify straight frames by Rectangles.
- Right Angle Polygon/Polygon frame: Specify straight frames by Right Angle Polygon/Polygon.
- Line: Specify a series of points linked together by straight lines.

Note

❒ You can designate many areas and apply the same changes to them all by placing them in the same Group.

❒ Different areas may be treated differently by placing them in different Groups.

Designate Area Display



1. **Message Area**
   Messages and instructions appear here.
2. **Display Area**
   The image is displayed.
3. **Area Shape/Frame/Line**
   Select the area shape or frame shape and line.
4. **Cancel Editing**
   Exit area editing.
5. **Scan Start**
   Scan in an original again.
6. **Portion of Image**
   Shows the portion of the original that is currently being viewed or is enlarged.

7. Enlarge

Enlarge 4	Enlarge by about 528%
Enlarge 3	Enlarge by about 394%
Enlarge 2	Enlarge by about 264%
Enlarge 1	Enlarge by about 200%
Full Image	

Note

❒ After pressing the **[Enlarge]** key, mark a point in the displayed image to zoom in on.

8. Basic Settings
Change the job settings for the entire image.

9. Outside Area
Set modes for outside areas.

10. Area Edit
Edit inside the area.

11. Confirm Areas
Show selected areas, modes, and groups.

12. Confirm Selection
Complete a designated area.

13. Erase
Cancel last point selected.

14. Arrow keys
Move cursor in small steps.

15. Scroll key
Move the portion of the original.

Note

❒ Do not press the touch panel display with any hard or sharp object. Always use the editor pen.

❒ When you mark a point with the editor pen, the cursor position might not be quite right. In this case, move the cursor in small steps by pressing the arrow keys on the display.

Designate Ar ea Tools

Note

❒ There are nine tools to designate areas.

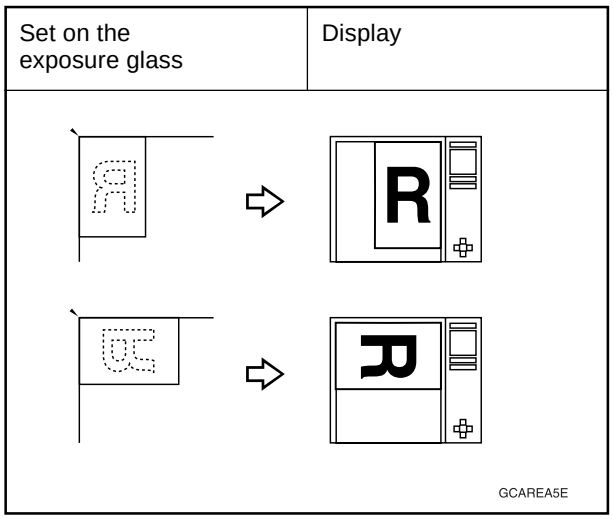
Area Editing

- Area Shape
  - Rectangle (☛ see page 109.)
  - Right Angle Polygon (☛ see page 110.)
  - Polygon (☛ see page 110.)
  - Closed Loop (☛ see page 110.)
  - Multi Closed Loop (☛ see page 111.)
- Frame/Line
  - Rectangle frame (☛ see page 112.)
  - Right Angle Polygon frame (☛ see page 112.)
  - Polygon frame (☛ see page 112.)
  - Line (☛ see page 113.)

Note

❒ You cannot use the optional document feeder in this function.

❒ The relationships between the position of the original and the orientation of the scanned image on the display are as follows:



Area Shapes

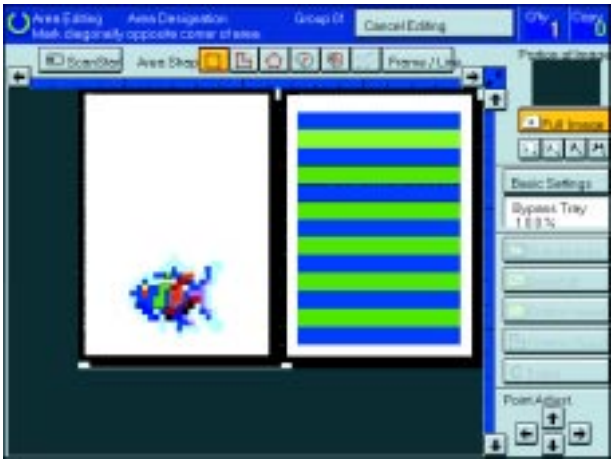
Rectangle

1 Set your original on the exposure glass.

2 Press the **[Area Editing]** key.

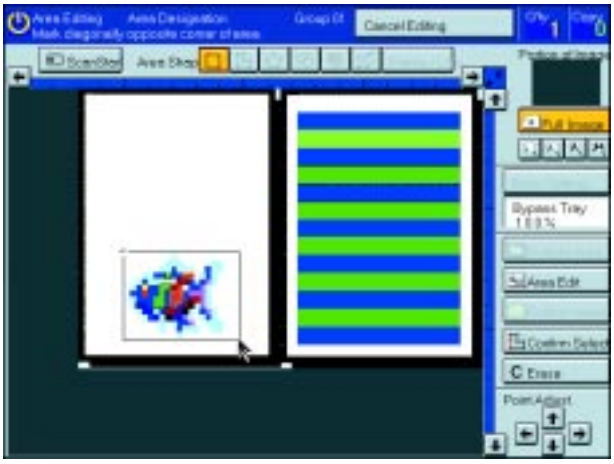
Note

❒ **(Rectangle)** key is selected as default.



3 Mark the first point with the editor pen.

4 Mark the diagonally opposite corner of the area you wish to select.



Note

❒ When you make a mistake, press the **[Erase]** key.

❒ Repeat 4 and 5 to add more rectangles.

❒ When you continue to add areas, you can select other shapes (except Closed Loop Multi-Closed Loop, Line, Frame).

5 Press the **[Confirm Selection]** key.

6 Press the **[Area Edit]** key, specify your settings, then press the **[OK]** key.

Reference

For details, ☛ see page 116.

7 Press the **[Start]** key.

Right Angle Polygon and Polygon

1. Set your original on the exposure glass.
2. Press the **[Area Editing]** key.
3. Press the **(R.A. Polygon)** or **(Polygon)** key.
4. Mark the first point with the editor pen.
5. Mark the next points.

Note

❒ When you use Right Angle Polygon mode, mark points that make right angles.

6. After making the last point, press the **[Confirm Selection]** key.
7. Press the **[Area Edit]** key, specify your settings, then press the **[OK]** key.

Reference

For details, ☛ see page 116.

8. Press the **[Start]** key.

Closed Loop

Limitation

❒ If you specify an area with Closed Loop, you cannot specify any additional areas with other selection tools.

Note

❒ When you color areas with the Closed Loop, the area boundary may shift depending on the image.

1. Set your original on the exposure glass.
2. Press the **[Area Editing]** key.
3. Press the **(Closed Loop)** key.
4. Touch on a point inside a closed loop.

5 Press the **[Confirm Selection]** key.

6 Press the **[Area Edit]** key, specify your settings, then press the **[OK]** key.

Reference

For details, ☛ see page 116.

7 Press the **[Start]** key.

Multi-Closed Loop

Limitation

❒ If you specify an area with Multi-Closed Loop, you cannot specify any additional areas with other selection tools.

1 Set your original on the exposure glass.

2 Press the **[Area Editing]** key.

3 Press the **(Multi-Closed loop)** key.

4 Press on a point inside the exterior area you wish to specify.

5 Press on a point inside the interior area you wish to treat differently.

Note

❒ Be sure to select a point inside of the exterior area you wish to define.

6 Press the **[Confirm Selection]** key.

7 Touch the **[Area Edit]** key, specify your settings, then press the **[OK]** key.

Reference

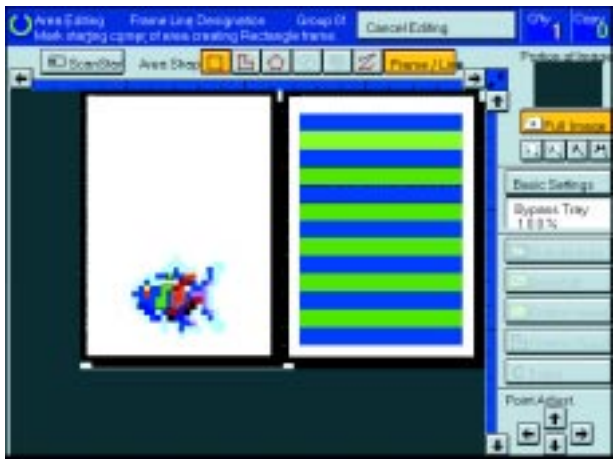
For details, ☛ see page 116.

8 Press the **[Start]** key.

Frame/Line

Rectangle frame

1. Set your original on the exposure glass.
2. Press the **[Area Editing]** key.
3. Press the **[Frame/Line]** key.
4. Press the **(Rectangle)** key.



5. Mark the first point with the editor pen.
6. Mark the diagonally opposite corner of the area you wish to select.
7. Press the **[Confirm Selection]** key.
8. Press the **[Area Edit]** key, specify your settings, then press the **[OK]** key.

Reference

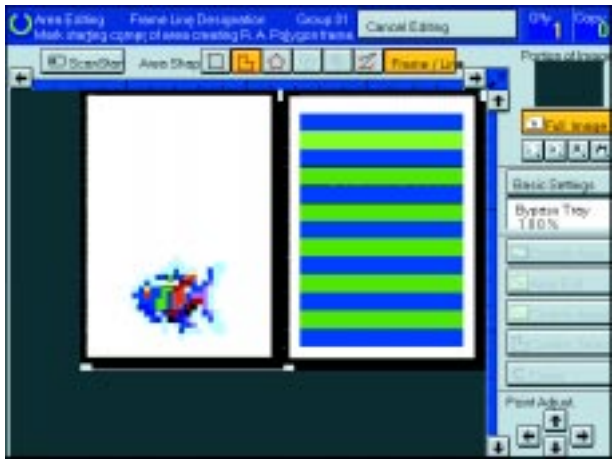
For details, ☛ see page 116.

9. Press the **[Start]** key.

Right Angle Polygon frame and Polygon frame

1. Set your original on the exposure glass.
2. Press the **[Area Editing]** key.
3. Press the **[Frame/Line]** key.

4 Press the **(Right Angle Polygon)** key or the **(Polygon)** key.



5 Mark the first point with the editor pen.

6 Mark the next points.

7 After making the last point, press the **[Confirm Selection]** key.

8 Press the **[Area Edit]** key, specify your settings, then press the **[OK]** key.

Reference

For details, ☛ see page 116.

9 Press the **[Start]** key.

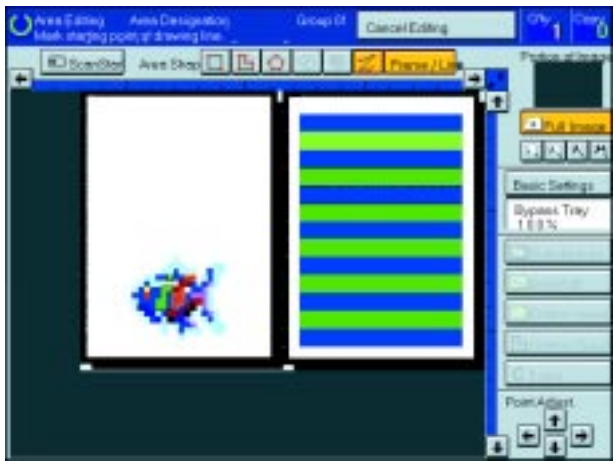
Line

1 Set your original on the exposure glass.

2 Press the **[Area Editing]** key.

3 Press the **[Frame/Line]** key.

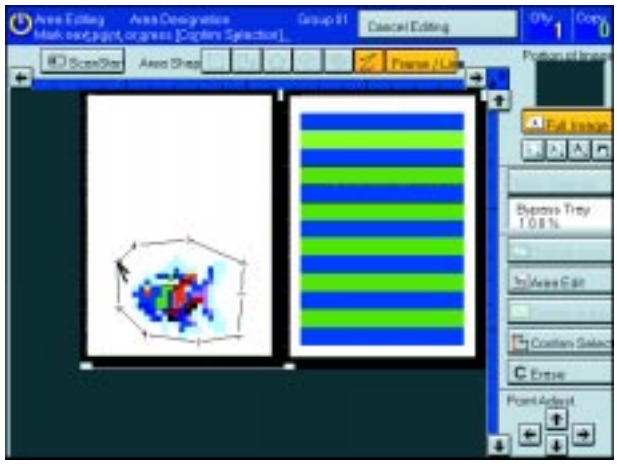
4 Press the **(Line)** key.



5 Mark the first point with the editor pen.

6 Mark the next points.

7 After marking the last point, press the **[Confirm Selection]** key.



8 Press the **[Area Edit]** key, specify your settings, then press the **[OK]** key.

Reference

For details, ☛ see page 116.

9 Press the **[Start]** key.

Notes for Designating Areas

The number of the points, areas, and groups that can be designated

Note

❒ Maximum number of points: 500

❒ In Right Angle Polygon mode, Polygon mode, or Line mode, the maximum number of points for one area is 30.

❒ The number of areas that can be designated is as follows:

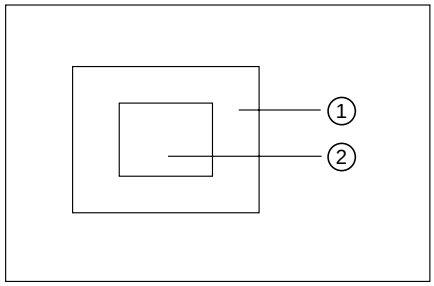
- Rectangle mode: maximum 250 areas
- Right Angle Polygon mode, Polygon mode, Line mode: 500 points maximum. For example, if 10 points are designated for each area, the maximum number of areas that can be designated is 50.
- Closed Loop mode, Multi-Closed Loop mode: maximum 500 areas

❒ Maximum number of groups: 20
("Group" means a set of areas that you want to do same editions.)

Note

❒ Do not designate an area or line which overlaps part of another area or line. If an area overlaps another one, the job settings specified last will be applied to the overlapped portion or those areas might not be copied.

❒ However, areas containing areas (see below) are permitted. Designate starting with the outermost area.



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These operations are available, however, under the following conditions:

- When designating areas with Closed Loop mode, Multi-Closed Loop or Frame/Line mode.

❒ If you mark a line and it overlaps another line you have previously marked, the last point you marked will be canceled automatically.

❒ If you designate an area in Right Angle Polygon mode, make sure to mark points that make right angles. If you mark a point which does not match, the editor will automatically correct it to make a right angle.

❒ If you want to designate a triangular area, use Polygon mode.

❒ In Closed Loop mode or Multi-Closed Loop mode, the machine might not detect a closed loop area or multi-closed loop area completely under the following conditions:

- The outline is not completely closed, it is too light to detect, or the thickness is uneven.
- The outline is thinner than 0.3mm.
- The outline is not black.
- The space between two closed loop outlines is less than 1mm.
- The closed loop can be up to 2 meters long.
- The area enclosed by the outline is not white.

❒ The more areas you designate, the more time copying will take.

❒ If you erase an area, group, or job setting, it is cleared from the display. However, the points are still stored in memory and are not cleared until you exit Area Editing. This affects the maximum number of areas you can designate.

❒ Closed Loop mode Multi-Closed Loop mode and Frame/Line mode cannot be used with Rectangle mode, Right Angle Polygon mode, and Polygon mode for one group at a time.

❒ If you need to align areas precisely, you can have a grid shown on the enlarged display. The grid spacing matches the scale of the display.

Selecting Modes for Designated Areas

Reference

The available modes for area editing depend on the area shape ☛ see page 128.

For functions that cannot be used together in area editing, ☛ see page 128.

More than one mode can be set for designated area, however, there are some limitations, ☛ see page 128. And up to 7 patterns of modes can be set together.

Note

❒ Up to 20 groups of multiple areas can be edited. All the areas should belong to groups 1-20.
You can select up to seven job patterns for at most 20 groups. After you have set seven patterns, the copier will only allow you to choose the pattern of a previous group.
If you change the settings for one group, it will change the settings for all other groups with the same job pattern.
However, if you have set a Paint, Color Background, or Frame/Line, changing the color in one group will not affect other groups. (Up to 15 colors can be selected.)

❒ The modes that can be set for inside areas as follows:

- Color/Image Adjustment: Image Density, Color Mode, Original Type, Image Adjustment, Color Adjustment, Color Balance Adjustment
- Color Creation: Color Conversion, Color Erase, Color Background Paint

Note

❒ The editing functions available when specifying area with Frame/Line mode are Width and Color.

❒ Color/Image Adjustment's default setting:

- Image Density - Manual Image Density
- Color Mode - Black & White
- Original Type - Text

❒ You can change the default settings. ☛ see page 151.

❒ Depending on the shapes of the areas, coloring or deleting near the outlines of the areas might not do well, or the outlines might become uneven.

❒ The way to set modes is basically the same as for the entire image. For details, refer to each page.

- To fill an area with a selected color, select the Paint.
- Image Density ☛ see page 37.
- Original Type ☛ see page 41.
- Color Adjustment ☛ see page 95.
- Color Conversion ☛ see page 77.
- Color Background ☛ see page 80.
- Color Mode ☛ see page 38.
- Image Adjustment ☛ see page 96.
- Color Balance Adjustment ☛ see page 92.
- Color Erase ☛ see page 79.
- Save Area ☛ see page 118.
- Changing Job Settings for the Entire Image ☛ see page 122.
- Changing Modes ☛ see page 123.
- Adding Areas ☛ see page 124.
- Erasing a Group ☛ see page 126.
- Delete Area ☛ see page 117.

Area Shapes

Basic modes

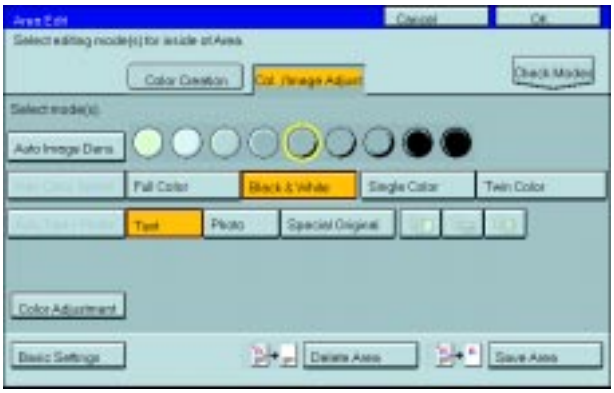
1 Designate the areas you wish to modify.

Note

❑ For designating areas, ☛ see page 106.

2 Press the **[Area Edit]** key.

3 Press the **[Col./Image Adjust.]**, **[Color Creation]** key.



4 Set the desired modes.

Note

❑ Image Density, ☛ see page 37.

❑ Clear Modes, ☛ see page 38.

❑ Original Type, ☛ see page 41.

❑ Color Creation, ☛ see page 77.

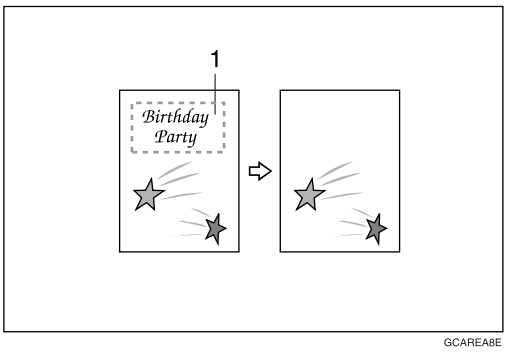
❑ Color Adjustment, ☛ see page 91.

5 Press the **[OK]** key.

6 Press the **[Start]** key.

Delete Ar ea—Erasing a Part of the Image

This function blanks out designated areas.



1: Designated area

Note

❒ When you select Delete Area mode, previously selected modes are canceled.

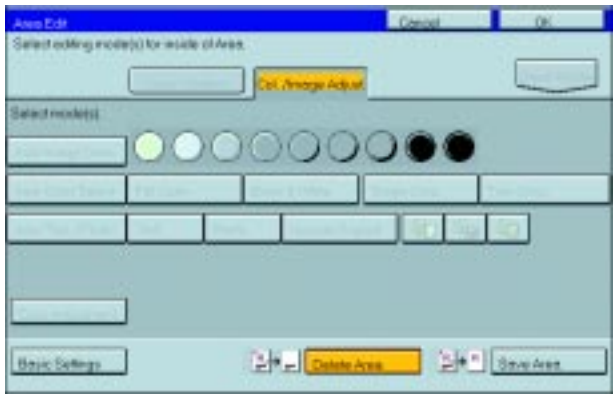
1 Designate the areas you wish to modify.

2 Press the **[Area Edit]** key.

Note

❒ For designating areas, ☛ see page 106.

3 Press the **[Delete Area]** key.

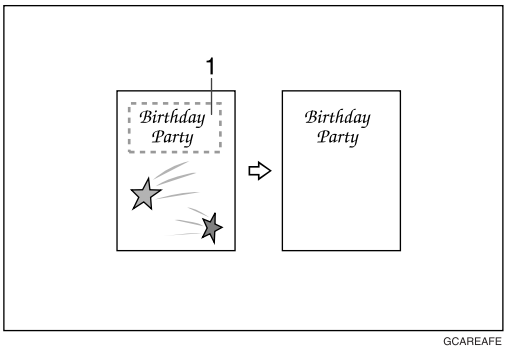


4 Press the **[OK]** key.

5 Press the **[Start]** key.

Save Ar ea—Blanking out Part of the Image

This function blanks out all areas except those designated.



1: Designated area

Note

❒ When you select Save Area mode, previously selected modes are canceled.

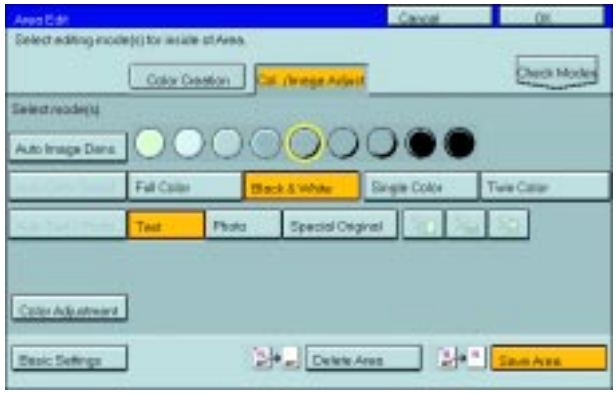
1 Designate the areas you wish to modify.

Note

❒ For designating areas, ☛ see page 106.

2 Press the **[Area Edit]** key.

3 Press the **[Save Area]** key.



4 Press the **[OK]** key.

5 Press the **[Start]** key.

Frame/Line

Editing color and widths

Note

- ❑ Frame/Line mode do not work with other modes.
- ❑ Frame/Line widths:

  Metric version: 0.25 - 2.0mm (in 0.25mm steps)

  Inch version: 0.01" - 0.08" (in 0.01" steps)
- ❑ The frame and line width might be uneven depending on the angle of the line.

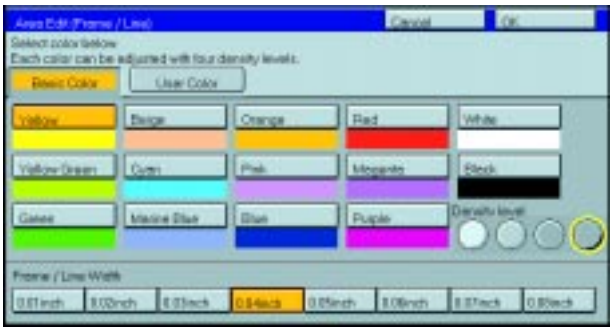
1 Designate the areas you wish to modify.

Note

- ❑ For designating areas, ☛ see page 106.

2 Press the **[Area Edit]** key.

3 Select the color and widths.



4 Press the **[OK]** key.

Selecting Modes for Outside Designated Areas

Reference

The available modes for area editing depend on the area shape. ☛ see page 128.

For functions that cannot be used together in area editing, ☛ see page 128.

More than one mode can be set, however, there are some limitations, ☛ see page 128.

The modes that can be set for outside areas as follows:

- Color/Image Adjustment: Copy Image Density, Color Mode, Original Type, Image Adjustment, Color Adjustment, Color Balance Adjustment
- Color Creation: Color Conversion, Color Erase, Color Background, Paint

Note

❒ Color/Image Adjustment's default setting:

- Image Density - Manual Image Density
- Color Mode - Black & White
- Original Type - Auto Text/Photo

❒ You can change the default settings. ☛ see page 151.

❒ The way to set modes is basically the same as for the entire image. For details, refer to each page.

- To fill an area with a selected color, select the Paint.
- Image Density ☛ see page 37.
- Original Type ☛ see page 41.
- Color Adjustment ☛ see page 95.
- Color Conversion ☛ see page 77.
- Color Background ☛ see page 80.
- Color Mode ☛ see page 38.
- Image Adjustment ☛ see page 96.
- Color Balance Adjustment ☛ see page 92.
- Color Erase ☛ see page 79.
- Save Area ☛ see page 118.
- Delete Area ☛ see page 117.

Area Shapes

Basic modes

1 Designate the areas you wish to modify.

Note

❒ For designating areas, ☛ see page 106.

2 Press the **[Outside Area]** key.

3 Press the **[Col./Image Adjust.]** or **[Color Creation]** key.

4 Set the desired modes.

Note

❒ Color Creation, ☛ see page 77.

❒ Basic Settings, ☛ see page 122.

5 Press the **[OK]** key.

6 Press the **[Start]** key.

Save Ar ea

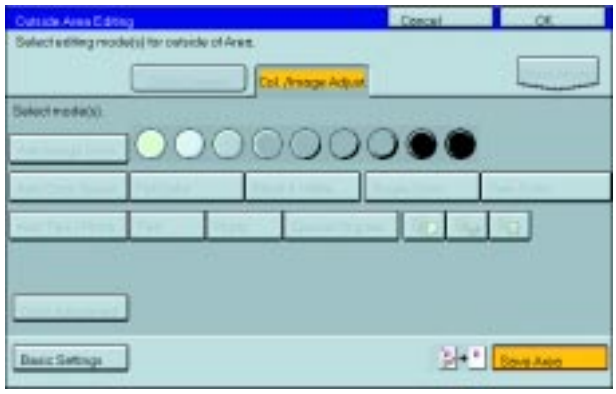
1 Designate the areas you wish to modify.

Note

❒ For designating areas, ☛ see page 106.

2 Press the **[Area Edit]** or **[Outside Area]** key.

3 Press the **[Save Area]** key.



4 Press the **[OK]** key.

5 Press the **[Start]** key.

Changing Job Settings for the Entire Image

You can change job settings for the entire image during area editing.

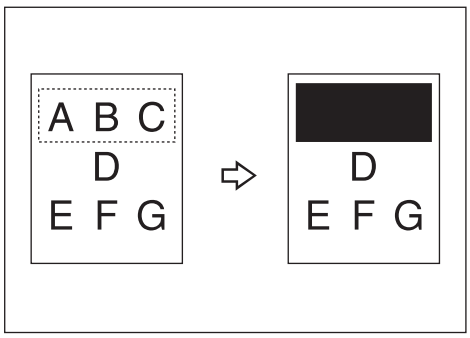
❒ The job settings that can be changed are as follows:

- Paper Select, ☛ see page 43.
- Reduce/Enlarge (Preset R/E, Zoom, Size Magnification, Directional Magnification), ☛ see page 56.
- Shift, ☛ see page 71.
- Margin Adjustment, ☛ see page 72.
- Sort/Stack/Staple (Option), ☛ see page 83.

Note

❒ Regarding functions that cannot be used together in area editing, ☛ see page 128.

❒ When you set Shift and Save Area together and designate more than one area in this mode, the minimum size rectangle that includes all the designated areas is shifted as follows:



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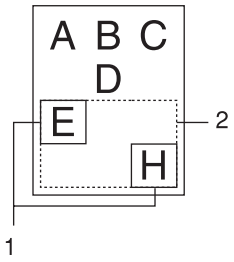


GCAREABE

1: Designated area
2: Area that will be shifted

1 Press the **[Basic Settings]** key.

2 Change the job settings.

3 Press the **[OK]** key.

Checking and Changing Areas

Use this function to check the areas you have selected and the modes you have chosen for each area.

You can:

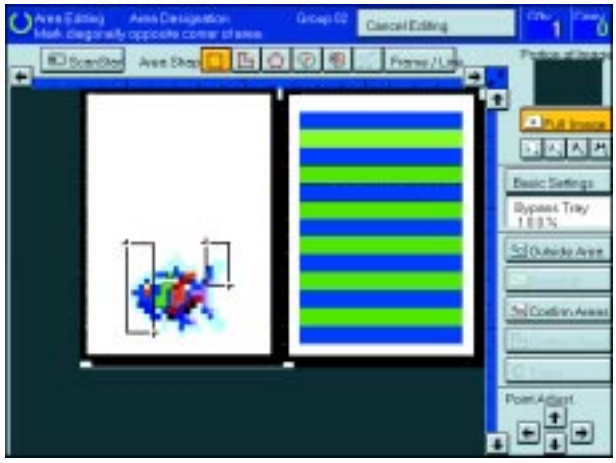
- Change the modes for an area/Group
- Add an area to a Group
- Erase an area
- Erase a Group

Note

❒ Note that even if you erase a job setting, a group, or an area, they still consume memory until you exit Area Editing.

Change Modes

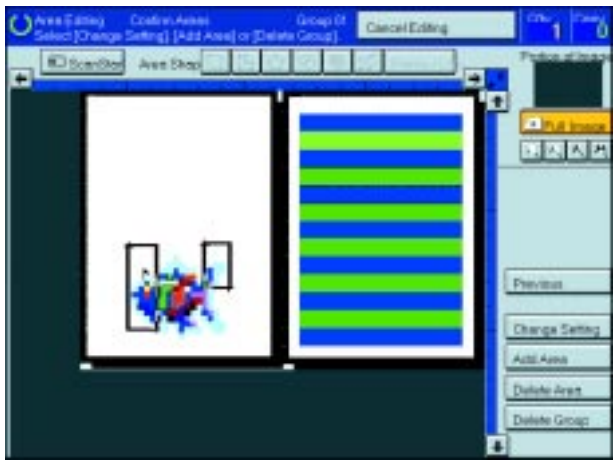
1 Press the **[Confirm Areas]** key.



Note

❒ All designated areas are displayed.

2 Select an area or a group.

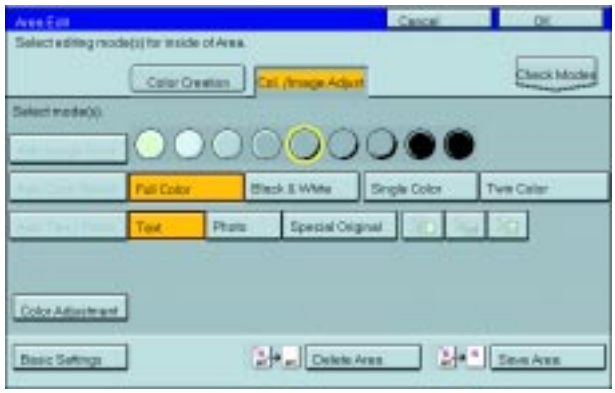


Note

❒ Areas in this group are highlighted.

3 Press the **[Change Setting]** key.

4 Change the modes, then press the **[OK]** key.



Note

❒ Color Creation, ☛ see page 77.

❒ Color Adjustment, ☛ see page 95.

❒ Basic Settings, ☛ see page 122.

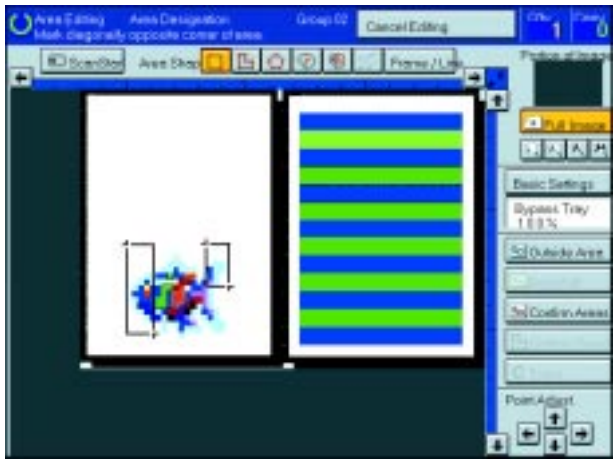
❒ Delete Area, ☛ see page 117.

❒ Save Area, ☛ see page 118.

5 Press the **[Previous]** key.

Adding Ar eas

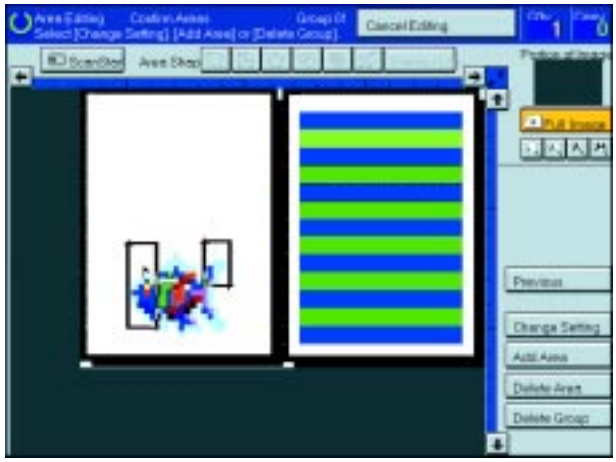
1 Press the **[Confirm Areas]** key.



Note

❒ The all designated areas are displayed.

2 Select an area or a group.



Note

❒ Areas in this group are highlighted.

3 Press the **[Add Area]** key.

4 Select the area shape.

5 Designate areas, then press the **[Confirm Areas]** key.

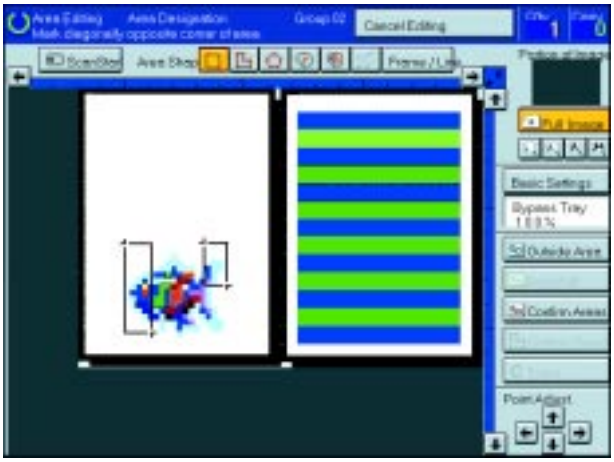
Note

❒ For designating areas, ☛ see page 106.

6 Press the **[Previous]** key.

Erasing an Ar ea

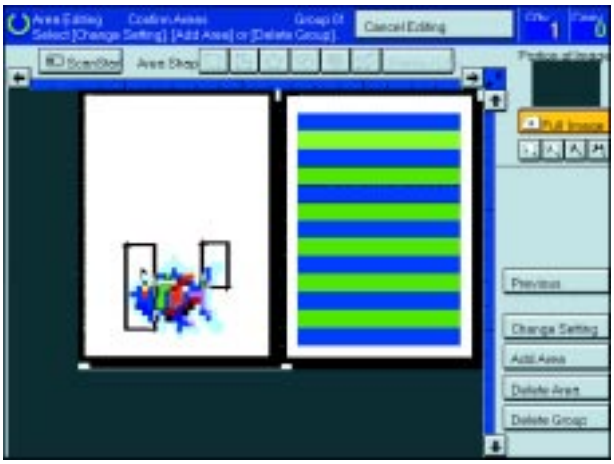
1 Press the **[Confirm Areas]** key.



Note

❒ All designated areas are displayed.

2 Select an area that you want to cancel.



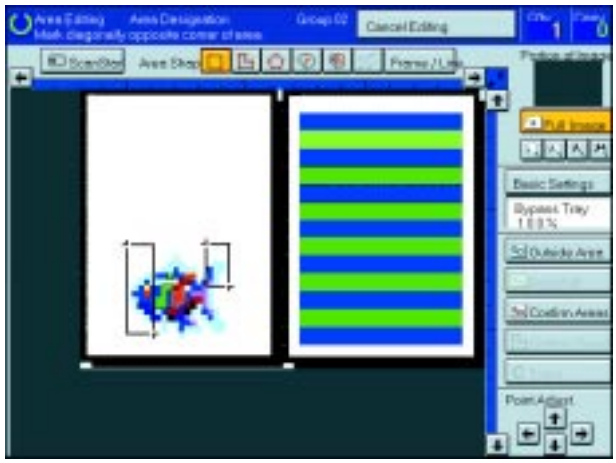
3 Press the **[Delete Area]** key.

4 Press the **[Yes]** key.

5 Press the **[Previous]** key.

Erasing a Gr oup

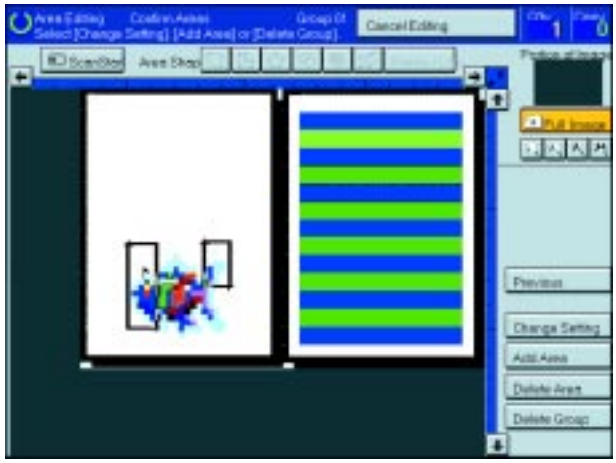
1 Press the **[Confirm Areas]** key.



Note

❒ All designated areas are displayed.

2 Select a group that you want to cancel.



Note

❒ Areas in this group are highlighted.

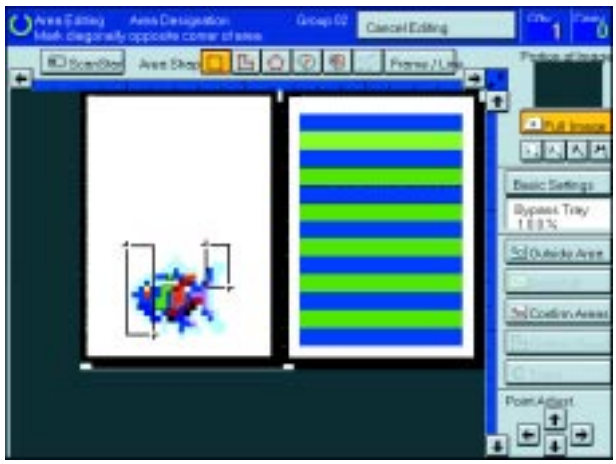
3 Press the **[Delete Group]** key.

4 Press the **[Yes]** key.

5 Press the **[Previous]** key.

Exiting Ar ea Editing

1 Press the **[Cancel Editing]** key.



2 Press the **[Yes]** key.

Combination Chart for Ar ea Editing

q Functions available for designated areas.
w Functions available for areas outside designated areas.
e Functions that can be selected together in an area.
r Functions available with each shape.
t Functions available for the entire image.

			q	w	e Newly selected mode: Color Mode: Full Color	Black & White	Single Color	Twin Color	Density: Manual Image Density	Auto Image Density	Original Type: Auto Text/Photo	Text	Photo	Special Original	Color Creation: Color conversion	Color Erase	Paint	Color Background
Color Mode	Full Color		★	☆		→	→	→	☆	X	→	☆	☆	☆	☆	☆	→	☆
	Black & White		★	☆	→		→	→	☆	★	→	☆	☆	☆	X	☆	→	☆
	Single Color		★	☆	→	→		→	☆	★	→	☆	☆	☆	X	☆	→	☆
	Twin Color		★	☆	→	→	→		☆	★	→	☆	☆	☆	X	X	→	☆
Image Desnsity	Manual Image Density		☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆	☆	☆	☆	☆
	Auto Image Density		★	☆	★	★	★	★	☆		☆	☆	☆	☆	☆	☆	☆	☆
Original Image Type	Auto Text/Photo		X	☆	☆	☆	☆	☆	☆	☆		→	→	→	☆	☆		☆
	Text		★	☆	☆	☆	☆	☆	☆	☆	→		→	→	☆	☆		☆
	Photo		★	☆	☆	☆	☆	☆	☆	☆	→	→		→	☆	☆		☆
	Special Original		★	☆	☆	☆	☆	☆	☆	☆	→	→	→		☆	☆		☆
Color Creation	Color Conversion		★	☆	☆	X	X	X	☆	☆	☆	☆	☆	☆		☆	→	→
	Color Erase		★	☆	☆	☆	☆	X	☆	☆	☆	☆	☆	☆	☆		→	→
	Paint		★	☆	X	X	X	X	X	☆	X	X	X	X	→	→		→
	Color Background		★	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→	→	→	
Image Adjustment	Soft/Sharp		★	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→	→
	Contrast		★	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
	Background Density		★	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→	→
	Pastel		★	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	→
	U.C.R. Adjustment		★	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Single Color Adjustment			★	☆	☆	→	→	→	☆	☆	☆	☆	☆	☆	☆	☆	→	☆
Color Balance Adjustment			★	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Save Area			☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆
Delete Area			☆	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Paper Select	Auto Paper Select		X	X														
	Copying from Paper Trays		X	X														
	Bypass Feed Copying		X	X														
Reduce/Enlarge	Preset Reduce/Enlarge		X	X														
	Zoom		X	X														
	Directional Magnification (%)		X	X														
	Directional Size Magnification (inch)		X	X														
Auto Reduce/Enlarge			X	X														
Shift/Book	Centering/Cornering, Margin Adjustment		X	X														
Duplex/Combine	Series	Book→1 Sided	X	X														
		2 Side→1 Sided	X	X														
	Duplex	1 Sided→2 Sided	X	X														
		2 Sided→2 Sided	X	X														
		Book→2 Sided	X	X														
		Multi→2 Sided	X	X														
	Combine	Combine 2 originals	X	X														
		Combine 4 originals	X	X														
Finishing	Sort/Stack/Staple		X	X														
Program			X	X														
Interrupt Copying			X	X														

☆ Those modes can be used together.
★ Those modes can be used together with some limitations.
→ The original mode is overridden and the newly selected mode is active.
✕ These modes cannot be used together.

			e: Newly selected mode: Image Adjustment: Soft/Sharp	Contrast	Background Density	Pastel	U.C.R. Adjustment	Color Adjustment	Color Balance Adjustment	Save Area	Delete Area	r: Rectangle	Right Rectangle	Polygon	Closed Loop	Multi Closed Loop	Line	Frame Line & Rectangle	Frame Line & Right Polygon	Frame Line & Polygon	t
Color Mode	Full Color		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Black & White		☆	☆	☆	☆	☆	✕	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Single Color		☆	☆	☆	☆	☆	✕	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Twin Color		☆	☆	☆	☆	☆	✕	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
Image Desnsity	Manual Image Density		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Auto Image Density		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
Original Image Type	Auto Text/Photo		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Text		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Photo		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Special Original		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
Color Creation	Color Conversion		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	✕	✕	—	—	—	—	
	Color Erase		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	✕	✕	—	—	—	—	
	Paint		✕	☆	✕	☆	☆	✕	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Color Background		☆	☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
Image Adjustment	Soft/Sharp			☆	☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Contrast		☆		☆	☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Background Density		☆	☆		☆	☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	Pastel		☆	☆	☆		☆	☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
	U.C.R. Adjustment		☆	☆	☆	☆		☆	☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
Single Color Adjustment			☆	☆	☆	☆	☆		☆	☆	→	☆	☆	☆	☆	☆	—	—	—	—	
Color Balance Adjustment			☆	☆	☆	☆	☆	☆		☆	→	☆	☆	☆	☆	☆	—	—	—	—	
Save Area			☆	☆	☆	☆	☆	☆	☆		☆	✕	✕	✕	✕	✕	—	—	—	—	
Delete Area			✕	✕	✕	✕	✕	✕	✕	✕		☆	☆	☆	☆	☆	—	—	—	—	
Paper Select	Auto Paper Select																				✕
	Copying from Paper Trays																				☆
	Bypass Feed Copying																				☆
Reduce/Enlarge	Preset Reduce/Enlarge																				☆
	Zoom																				☆
	Directional Magnification (%)																				☆
	Directional Size Magnification (inch)																				☆
Auto Reduce/Enlarge																					✕
Shift/Book	Centering/Cornering, Margin Adjustment																				☆
Duplex/Combine	Series	Book→1 Sided																			✕
		2 Side→1 Sided																			✕
	Duplex	1 Sided→2 Sided																			✕
		2 Sided→2 Sided																			✕
		Book→2 Sided																			✕
		Multi→2 Sided																			✕
	Combine	Combine 2 originals																			✕
		Combine 4 originals																			✕
Finishing	Sort/Stack/Staple																				☆
Program																					☆
Interrupt Copying																					✕

What to do if Something Goes Wrong

If Your Machine does not Operate as You Want

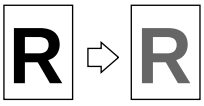
Check the following:

Condition	Action
Nothing happens when the operation switch is turned on.	Is the main power switch turned on? →Turn on the main power switch.
Paper tray is empty.	Load paper. ☛ see page 136.
Toner container is almost empty. Or toner container is empty.	Add toner. ☛ see page 138.
Doors/covers are open.	Close the doors/covers.
Misfeed occurs.	Remove misfed paper. ☛ see page 140.
The machine instructs you to add staples.	Add staples. ☛ see page 143.
The machine instructs you to enter your user code.	The machine is set for User Code mode. Enter your user code. ☛ see page 160.
The **Energy Saver** indicator is on.	Your machine is under the energy saver condition. →Press the [**Energy Saver**] key. ☛ see page 52.
Misfeeds occur frequently.	Is the right kind of paper in the paper tray? →Paper size and weight must be within the specifications for this machine.
	Is folded, wrinkled, damp, or curled paper in the paper tray? →Always use dry, undamaged paper.
	Is the paper properly set in the paper tray? →Always load paper correctly.
	Are there any pieces of misfed paper or other foreign objects in the machine? →Make sure that the paper path is completely clear of paper and other material after a misfeed.
Staples do not come out at all.	There are jammed staples in the stapler. →Remove the jammed staples. ☛ see page 144.
	After loading a new staple cartridge, staples might not be ejected the first few times you try to use the stapler.
or or is lit.	Contact your service representative.
The machine cannot detect the original size.	Set custom size original on the exposure glass.
	Input the both horizontal and vertical sizes of the custom original. ☛ see page 46.
	Select paper manually, not in Auto Paper Select mode.
	Do not use Auto Reduce/Enlarge mode.
	Set your originals.
The machine instructs you to check the original direction.	Set the original in the same direction as the copy paper.
The machine instructs you to check paper size.	Select the proper paper size.
The machine cannot sort this size paper.	Select the proper paper size that can be used in Sort mode. ☛ see page 83.

Condition	Action
The machine cannot stack this size paper.	Select the proper paper size that can be used in Stack mode. ☛ see page 84.
You cannot enter the desired copy set number.	You can change the maximum copy quantity that you can make at a time. ☛ see page 159.
The machine instructs you to set the duplex tray.	Reset the duplex tray correctly. ☛ see page 2.
The machine instructs you to wait.	Wait for the machine to warm-up.
The panel display is off.	Press the **【Energy Saver】** key to cancel Energy Saver mode.
	Turn on the operation switch.
	Adjust the Screen Contrast. ☛ see page 5.

❒ If you cannot correct the problem by taking the above actions, please contact your service representative.

If You cannot Make Copies as You Want

Problem	Cause	Action
Copies appear dirty.	The image density is too dark.	Adjust the image density. ☛ see page 37.
		Adjust the background density. ☛ see page 96.
	The exposure glass (platen glass) or document feeder belt is dirty.	Clean them. ☛ see page 164.
The reverse side of an original image is copied.	The image density is too dark.	Adjust the image density. ☛ see page 37.
		If you select Black & White Copy mode or Single Color mode, place a black paper in the backside of the original and select Auto Image Density mode.
		Lighten the background density. ☛ see page 96.
A shadow is copied when copying a pasted original.	The image density is too dark.	Adjust the image density. ☛ see page 37.
		Adjust the background density. ☛ see page 96.
		Set the original in a different direction.
		Put mending tape on the bound part.
Copies are too light.	The original has a low contrast image.	Adjust the image density. ☛ see page 37.
	The image density is too light.	
	Damp or rough grain paper is used	Use dry paper without rough grain.
Copy image is not clear.	The original image type (Text/Photo) is not selected properly.	Select the proper original image type. ☛ see page 41.
		Adjust the sharpness of the image with the Soft/Sharp function. ☛ see page 96.
The same copy area is dirty whenever making copies.	The exposure glass (platen glass) or document feeder belt is dirty.	Clean them. ☛ see page 164.
Copies are blank or parts of the image are not copied.	The original is not set correctly.	Set the originals correctly. ☛ see page 29, 30 or 31.
	An improper paper size is selected.	Select the proper paper size.
	The selected reproduction ratio does not match the paper size.	Select the proper reproduction ratio.
A moire pattern is produced on copies as shown in the illustration. 	The Text mode is selected.	Select Auto Text/Photo mode or Photo mode. ☛ see page 41.
	The line images of the original might be overlapped each other.	Place the original on the exposure glass (platen glass) at a slight angle.
		Adjust the sharpness of the image. ☛ see page 96.

Problem	Cause	Action
Color tone of copies is different from that of originals.	The color balance is not set properly.	Adjust the Color Balance. ☛ see page 92.
		Perform the Auto Color Calibration. ☛ see page 162.
Color tone of copies is completely different from that of originals.	Unsuitable color setting.	Perform Auto Color Calibration. ☛ see page 162. If you cannot correct the problem by performing Auto Color Calibration, contact your service representative.
Letter parts and photo parts of an original are not separated correctly.	An original has screen letters or low density letters.	Adjust the Auto Text/Photo Sensitivity to a "Text" level. ☛ see page 96.
	An original has a high contrast photo.	Adjust the Auto Text/Photo Sensitivity to a "Photo" level. ☛ see page 96.
	An original has a photo having sequence thin lines with regular thin spaces.	
Color parts of an original are copied in black in Auto Color Select mode.	There are small or thin color parts.	Adjust the A.C.S. Sensitivity to a "Full Color" level. ☛ see page 96.
Non-color parts of an original are copied in color in Auto Color Select mode.	The machine might detect some black and white screen images (such as from newspaper) as a full color original.	Select Black & White Copy mode. ☛ see page 38.
		Adjust the A.C.S. Sensitivity to a "B&W" level. ☛ see page 96.
A copy image is blurred.	The image density is too light.	Adjust the image density. ☛ see page 37.
	An improper kind of paper is set.	Set the right kind of paper in the paper tray. **Note** ❒ Copies might be blurred if you copy onto rough grain, coated, or damp paper.
	Toner is running out.	Add toner. ☛ see page 138.
In Margin Adjustment mode, parts of the original image are not copied.	The margin is set too wide.	Set the narrow margin with the user tools. ☛ see page 159.

❒ If you cannot correct the problem by taking the above actions, please contact your service representative.

Loading Paper

Reference

Regarding paper sizes that can be set, ☛ see page 202.

Note

❒ If you want to change the paper size, ☛ see 148.

Non-recommended Paper for Paper Trays

❒ Folded, curled, creased, or damaged paper

❒ Torn paper

❒ Perforated paper

❒ Paper with conductive or low electrical resistance coating such as carbon or silver coating

❒ Thermal paper, art paper

❒ Thin paper that has low stiffness

❒ Damp paper

❒ Wavy paper

❒ Stapled paper

❒ Translucent paper

❒ OHP transparencies

Note

❒ Load paper with the side you wish to copy onto face-down in the paper trays. If copies are curled, try turning the copy paper over in the tray. If there is no improvement, change to copy paper with less curl.

❒ Correct curls in copy paper before loading.

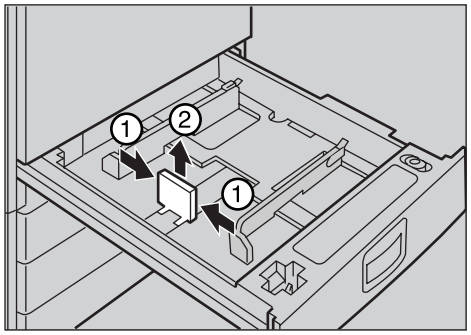
❒ Fan copy paper to get air between the sheets before loading.

❒ When making two-sided copies, do not load paper in the paper tray to copy on the reverse side. Use the bypass tray. ☛ see page 49.

Loading Paper in the Paper Tray

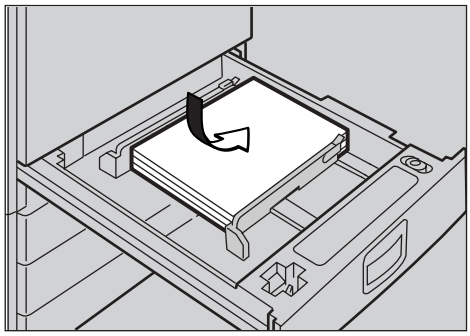
1 Pull out the paper tray until it stops.

2 Remove the back fense.



TLCY070E

3 Square the paper and set it in the tray.


TLCY060E

Note

❒ Do not stack paper over the limit mark.

❒ Make sure that the leading corners of the paper are under the corners.

4 Reinstall the back fence.

5 Push the paper tray in until it stops.

Adding Toner

There are four kinds of toner (Cyan, Magenta, Yellow and Black). When is lit, it is time to add toner.

⚠ WARNING:

- ***Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of the used toner containers according to local regulations for plastics.***

⚠CAUTION:

- *Do not eat or swallow toner.*
- *Keep toner (used or unused) and toner containers out of reach of children.*

⚠CAUTION:

- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

Note

❒ If you use toner other than that recommended, a fault might occur.

❒ When adding toner, do not turn off the operation switch. If you do, your settings are cleared.

❒ Always add toner after the machine instructs you to add toner.

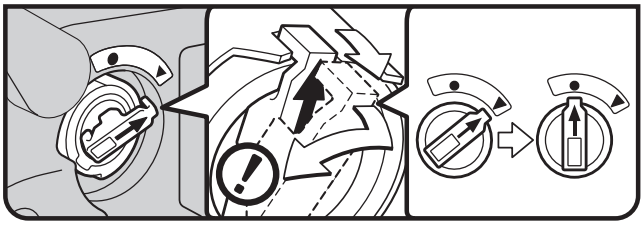
❒ Do not use used toner. This will damage the machine.

❒ Be sure to add the correct color toner.

❒ You can still make about 20 copies after appears. This is a good time to get a new toner cartridge ready.

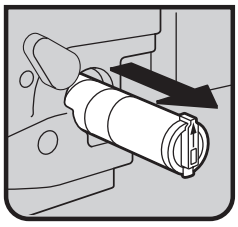
1 Open the front cover of the machine.

2 Pull the knob to unlock it, then turn it counterclockwise to the ● mark.



TRSX070E

3 Gently pull out the toner container.

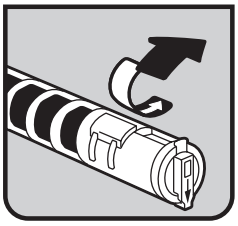


TRSX071E

4 Hold a new toner container horizontally and shake it 5 or 6 times.

TRSX072E

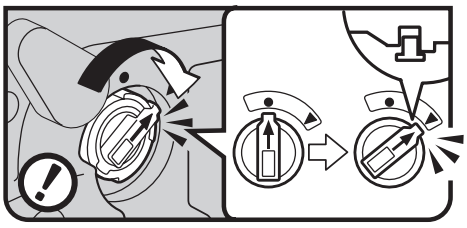
5 Remove the seal


TRSX075E

6 Insert the toner container with the ↑ mark at the top.

TRSX073E

7 Turn the knob clockwise to the ▼ mark until it clicks.


TRSX074E

8 Close the front cover.

Clearing Misfeeds

⚠ ***CAUTION***

• When removing misfed paper, do not touch the fusing section because it could be very hot.

Note

❒ When clearing misfeeds, do not turn off the operation switch. If you do, your copy settings are cleared.

❒ To prevent misfeeds, do not leave any torn scraps of paper within the machine.

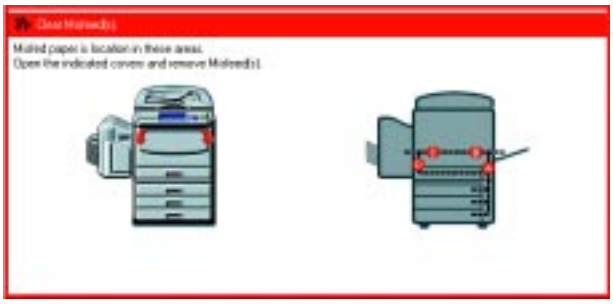
❒ If paper misfeeds occur repeatedly, contact your service representative.

❒ When clearing misfeeds, make sure that all units and levers are returned to their original position and all covers are closed.

❒ Do not touch originals in the document feeder when a paper misfeed occurs in the machine. If you do the machine cannot determine which originals have been copied and which haven't.

Check the Misfeed Location Display

The display shows the location of misfed paper.



Clearing Paper Misfeeds

When A, B, C, D, Y or Z is Displayed:

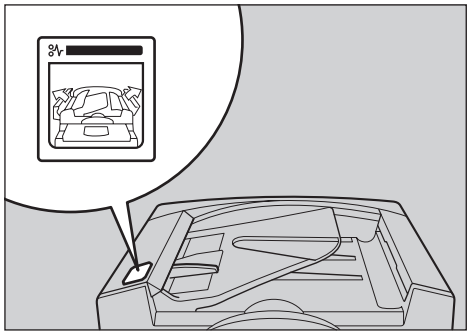
1. Open the front cover of the machine.
2. You can find a sticker (with ⚠ at the top) explaining how to remove misfed paper, inside the front cover as shown in the illustration.
3. Remove misfed paper following the instructions on the sticker.

When P is Displayed:

Note

❒ This indicator is displayed only when your machine is equipped with the document feeder.

1. You can find a sticker (with ⚠ at the top), explaining how to remove the misfed paper, on the document feeder as shown in the illustration.



TRSX100E

2. Remove the misfed paper following the instructions on the sticker.

When R is Displayed:

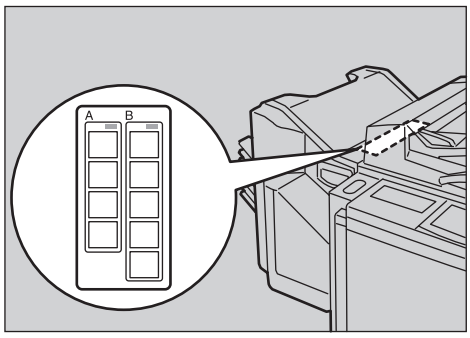
If your machine is equipped with the 20-bin sorter stapler

1. You can find a sticker (with at the top) explaining how to remove misfed paper, on the cover of the sorter stapler as shown in the illustration.

2. Remove the misfed paper following the instructions on the sticker.

If your machine is equipped with the 10-bin sorter stapler

1. You can find a sticker (with at the top), explaining how to remove misfed paper, on the cover of the sorter stapler as shown in the illustration.



TRSX120E

2. Remove the misfed paper following the instructions on the sticker.

Adding Staples

⚠ ***CAUTION:***

> ***• This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.***

Note

❒ If you use a staple cartridge other than that recommended, staple failure or staple jams might occur.

1 Open the front cover of the sorter stapler.

2 Raise the staple unit towards you.

3 Remove the cartridge.

4 Hold the new cartridge as shown in the illustration, then pull out the stopper.

Note

❒ If the staple is coming out, press it to the proper position.

5 Reinstall the cartridge until it clicks.

6 Push the staple unit to the original position.

7 Close the front cover of the sorter stapler.

Removing Jammed Staples

Note

❒ Staples might be jammed because of curled copies. In this case, try turning the copy paper over in the tray. If there is no improvement, change the copy paper with less curls.

❒ After removing jammed staples, staples might not be ejected the first few times you try to use the stapler.

1. Open the front cover of the sorter stapler.

2. Raise the staple unit towards you.

3. Remove the cartridge.

4. While pushing the lock, pull the top cover.

5. Remove the jammed staple.

6. Push the top cover until it clicks.

Note

❒ If the staple is coming out, press it to the proper position.

7 Reinstall the cartridge until it clicks.

8 Push the staple unit to the original position.

9 Close the front cover of the sorter stapler.

Changing the Machine's Settings

Changing Paper Size

Note

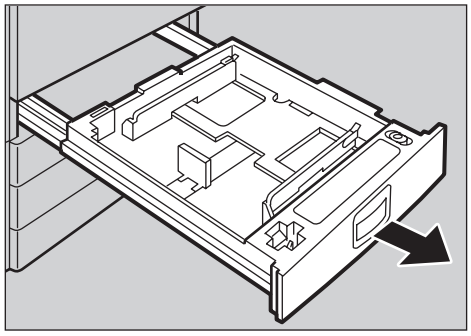
❒ Make sure to select paper size with the user tools. Otherwise, misfeeds might occur.

Reference

For paper sizes, weight, and capacity that can be set in each tray, ☛ see page 202.

1 Make sure that the paper tray is not being used.

2 Pull out the paper tray until it stops.

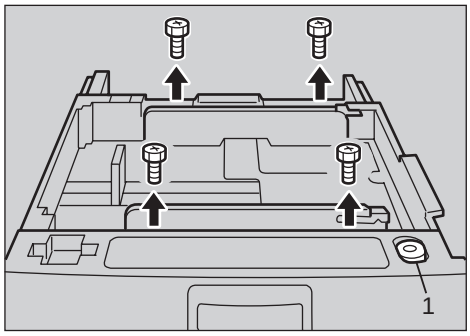


TLCY050E

Note

❒ Remove any remaining copy paper.

3 Remove the screws fastening the side fences using the screwdriver.



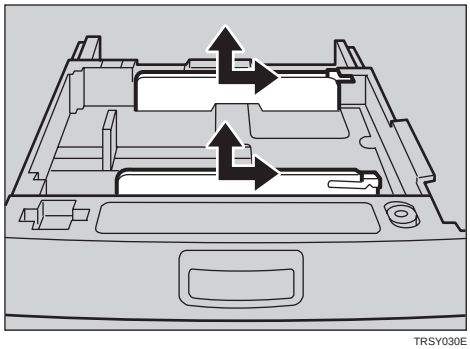
TRSY010E

1: Screwdriver

Note

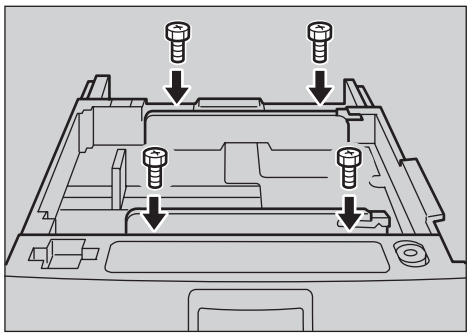
❒ A screwdriver is contained in the front area of the tray.

4 Re-position the side fences to the paper size you want to use.



TRSY030E

5 Fasten the fences with screws.

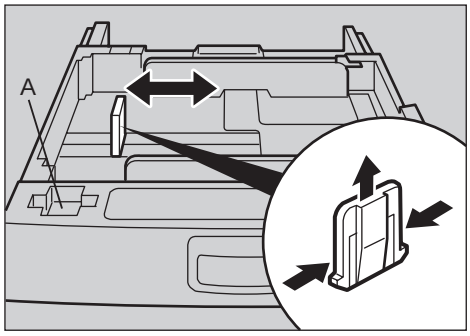


TRSY040E

6 Adjust the back fences to the new paper size.

Note

❒ For 11" × 17" paper, put the back fences inside A.



TRSY020E

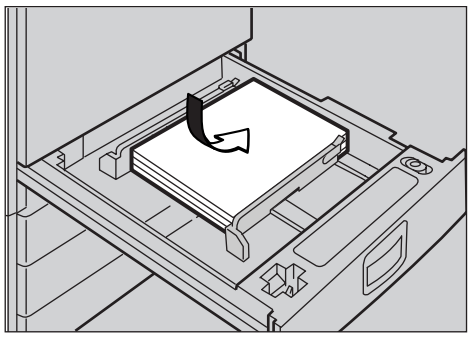
7 Square the paper and set it in the tray.

Note

❒ Shuffle the paper before setting it in the tray.

❒ Do not stack paper over the limit mark.

❒ Make sure the leading corners of the paper are under the corners.



TLCY060E

8 Push the paper tray in until it stops.

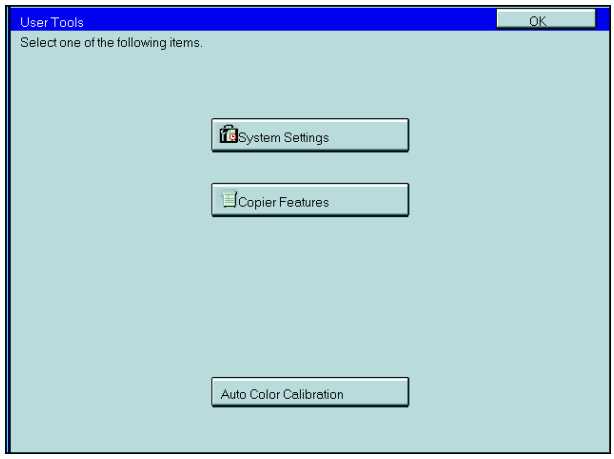
9 Select the paper size with the user tools.

Changing Paper Size with the User Tools

1. Follow the steps 1 to 8 on page 148 and 149.

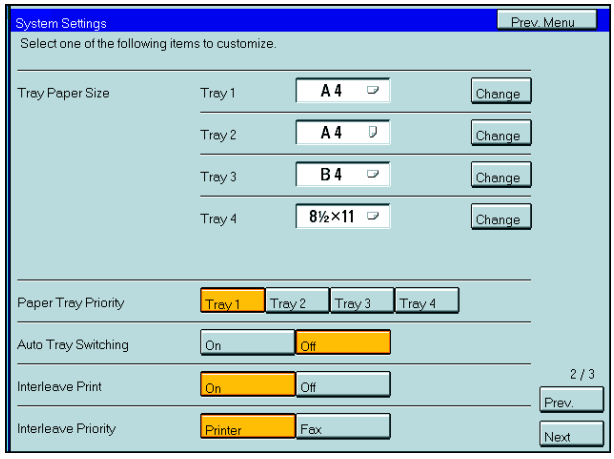
2. Press the **[User Tools]** key.

3. Press the **[System Settings]** key.



4. Press the **[Next]** key until Tray Paper Size is displayed.

5. Press the **[Change]** key to select the tray.



6. Select the paper size, then press the **[OK]** key.

7. Press the **[User Tools]** key to exit from the user tools.

User Tools

Accessing the User Tools

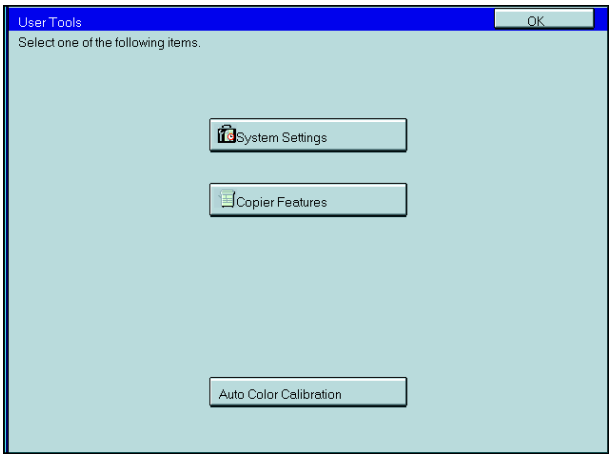
This section is for the key operators in change of this machine. You can change or set the machine's default settings.

Note

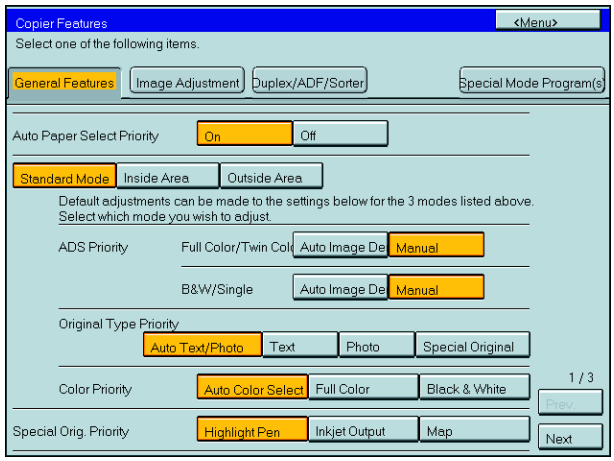
❒ After using the tools, be sure to exit from the user tools.

1 Press the **[User Tools]** key.

2 Press the **[System Settings]** or **[Copier Features]** key.



3 Select the desired user toools menu.



Note

- **[Next] :** Press to go to the next page.
- **[Prev.] :** Press to go back to the previous page.

Reference

User tools menu, ☛ see page 153.

4 Change the settings by following the instructions on the panel display.

Note

- **[Prev. Menu] key:** Press to return to the previous menu.
- **[Cancel] key:** Press to return to the previous menu without changing any data.

Exiting from the User Tools

1 After changing the user tools settings, press the **[User Tools]** key.

Note

- The settings are not canceled even if the operation switch is turned off or the **[Clear Modes]** key is pressed.

User Tools Menu

System Settings

Menu		See
Panel Tone		page 155
Ready/Tone		page 155
Copy Count Display		page 155
Auto Timer		page 155
Control Panel Off Timer		page 155
System Reset Timer		page 155
Function Reset Timer		page 155
Tray Paper Size		page 156
Paper Tray Priority	–––––	page 156
Auto Tray Switching		page 156
Interleave Print		page 156
3 Side Full Bleed		page 156
Bypass Tray Custom Size		page 157
Display Color Setting		page 157
Key Operator Tools		page 157
AOF (Keep It On)		page 157
Output Tray (For 3-bin sorter only)		page 157

Copier Features

Menu			See
General Features	Auto Paper Select Priority		page 158
	ADS Priority (FC/Twin)		page 158
	ADS Priority (B&W/SC)		page 158
	Original Type Priority		page 158
	Color Priority		page 158
	Special Orig. Priority		page 158
	Photo Type (Auto Text/Photo)		page 158
	Photo Type (Photo)		page 158
	Copy Reset Timer	–––––	page 159
	Maximum Copy Quantity		page 159
	Tone: Original on Platen		page 159
	Front Side Margin Adjust.		page 159
	Back Side Margin Adjust.		page 159
	1→2 Duplex Auto Margin Adjust.		page 159
	Magnification Setting		page 159
	Initial Mode Setting		page 159
	Show Editor Grid		page 160
	Area Shape Priority		page 160
	Key Operator Tools	Accessible Modes Setting	page 160
		User Code Setting	page 160
		Counter Manager	page 160
Image Adjustment	Background Dens. of A.D.S. (FC/Twin)		page 161
	A.C.S. Priority	–––––	page 161
	Color Sensitivity		page 161
	Inkjet Output Mode Setting		page 161
Duplex/ ADF/Sorter	Duplex Tray Auto Clear		page 161
	SADF Auto Reset Timer		page 161
	ADF Thin paper		page 162
	ADF Mixed Sizes	–––––	page 162
	ADF Auto Paper Select		page 162
	Full Color Copy Sorting		page 162
	Auto Sort Mode		page 162
Special Mode Program(s)	Special Mode	–––––	page 162

Auto Color Callibration

Copy Mode/Printer Mode	–––––	page 162

Setting You can Change with the User Tools (System Settings)

Reference

For how to access the user tools, see page 151.

System setting

Menu	Description
Panel Tone	The key tone sounds when a key is pressed. This beeper can be turned on or off. **Note** ❒ Default: On
Ready/Tone	Choose whether the machine beeps when it becomes ready for a copy run after power up. **Note** ❒ Default: On ❒ When the “Panel Tone” is set to Off, the beeper does not sound even if the “Ready/Tone” is set to On.
Copy Count Display	The copy counter can be set to show the number of copies made (Count Up), or the number of copies remaining to be made (Count Down). **Note** ❒ Default: Up
Auto Timer	The machine turns itself off automatically to conserve energy after your job is finished, after the selected time. This function called “Auto Off”. The time can be set from 1 to 120 minutes. **Note** ❒ Default: 60 minutes
Control Panel Off Timer	The machine enters Energy Saver mode automatically after your job is finished, after the selected time. The time can be set from 10 to 990 seconds (in 10 seconds steps), or off. In Energy Saver mode, the panel display turns off. **Note** ❒ Default: On (60 seconds)
System Reset Timer (Printer Option Required)	The machine returns to its prioritized mode automatically a certain time after your job is finished, after the selected time. The time can be set from 10 to 990 seconds (in 10 seconds steps), or off. **Note** ❒ Default: On (60 seconds)
Function Reset Timer (Printer Option Required)	When Interleave Print is turned on and a print job comes along while the machine is busy printing another job, this delay specifies how long the machine will wait before switching to the priority print job. The time can be set from 10 to 990 seconds. **Note** ❒ Default: On (60 seconds) ❒ The Optional Printer is required to use this function.

Menu	Description
Tray Paper Size	Select the size of the copy paper set in the paper tray. **Note** ❒ If the specified paper size differs from the size of paper actually set in the paper tray, a paper misfeed might occur because the paper size is not detected correctly. **Reference** For details, ☛ see page 202.
Paper Tray Priority	You can select the paper tray which will be selected as a default in the following conditions: • When the main power switch or operation switch is turned on. • When System Reset or Auto Reset mode is turned on. • When the **[Clear Modes]** key is pressed. • When the Auto Paper Select mode is not selected. **Note** ❒ Default: Tray 1
Auto Tray Switching	If you load paper of the same size in two or more trays, the machine automatically shifts another tray when the tray in use runs out of paper. You can set or cancel this setting. **Note** ❒ Default: Off ❒ This function is not available in Area Editing Mode.
Interleave Print (Printer Option Required)	Turn this feature on to give print jobs priority. If a print job comes along while another job is in progress, the current job will be temporarily suspended while the print job is printed. **Note** ❒ Default: On
3 Side Full Bleed	When this mode is off, narrow margins on all 4 sides of the original are not copied. **1: 2 ± 2mm / 0.08" ± 0.08"** **2: 2 ± 2mm / -1.5mm, 0.08" + 0.08" / -0.06"** **3: 2 ± 2mm, 0.08" ± 0.08"** **4: 5 ± 2mm, 0.2" ± 0.08"** When you turn it on, margins 1, 2 and 3 are copied. **Note** ❒ Default: Off ❒ You cannot cancel the leading edge margin (margin 4).

Menu	Description
Bypass Tray Custom Size	You can register the non-standard size paper when you make copies with the bypass tray. 1. Press the **[Change]** key. 2. Enter the horizontal size with the **[Number]** keys. 3. Enter the vertical size with the **[Number]** keys, then press the **[#]** key. 4. Press the **[OK]** key. **Note** ❒ Adjustment value: Metric version: Vertical: 100 - 305mm Horizontal: 140 - 457mm Inch version: Vertical: 3.9" - 12.0" Horizontal: 5.5" - 18.0" **Note** ❒ Default: Custom 1
Display Color Setting	You can change the color of the display editor. **Note** ❒ Default: Blue
Key Operator Tools	If you select “On”, only operators who know the key operator code can access the “Key Operator Tools” and Copier Features. **Note** ❒ Default: Off ❒ If you select “On”, you should register the key operator code.
AOF (Keep It On.)	**Note** ❒ For details about this function, contact your service representative.
Output Tray (For 3-bin sorter only)	You can specify a bin to which documents are delivered for each feature (copy and printer). **Note** ❒ Default: Copy: First Bin Printer: Second Bin

Setting You can Change with the User Tools (Copier Features)

Reference

For how to access the user tools, ☛ see page 151.

General Features

Menu	Description
Auto Paper Select Priority	As a default setting, the Auto Paper Select is selected just after the machine is turned on or when modes are cleared. You can cancel this setting. **Note** ❒ Default: On
ADS Priority (FC/Twin)	As a default setting, the Manual Image Density is selected in Full Color mode just after the machine is turned on or when modes are cleared. You can cancel this setting so that the Auto Image Density is selected. **Note** ❒ Default: Manual
ADS Priority (B&W/SC)	As a default setting, the Manual is selected in Black, Single Color, and Twin Color mode just after the machine is turned on or when modes are cleared. You can cancel this setting. **Note** ❒ Default: Manual
Original Type Priority	You can select the original image type (Auto Text/Photo mode, Text mode, Photo mode, or Special Original mode) that is selected automatically just after the machine is turned on or when modes are cleared. **Note** ❒ Default: Auto Text/Photo mode
Color Priority	You can select the color mode (Auto Color Select mode, Full Color mode, or Black & White mode) that is selected automatically just after the machine is turned on or when modes are cleared. **Note** ❒ Default: Auto Color Select mode
Special Orig. Priority	You can select the special original type (Highlight Pen, Inkjet Output, or Map) that is selected automatically just after the machine is turned on or when modes are cleared. **Note** ❒ Default: Highlight Pen
Photo Type (Auto Text/ Photo)	You can select the photo type (Press Print, Glossy Photo, or 2nd Generation) in Auto Text/Photo mode that is selected automatically just after the machine is turned on or when modes are cleared. **Note** ❒ Default: Press Print
Photo Type (Photo)	You can select the photo type (Press Print, Glossy Photo, or 2nd Generation) in Photo mode that is selected automatically just after the machine is turned on or when modes are cleared. **Note** ❒ Default: Press Print

Menu	Description
Copy Reset Timer	The machine returns to its initial condition automatically after your job is finished. The time can be set from 10 to 990 seconds, or no copy reset. 1. Select **[On]** or **[Off]** keys. 2. When you select **[On]**, enter the time with the **[Number]** keys. Then, press the **[#]** key. **Note** ❒ Default: on (60 seconds)
Maximum Copy Quantity	The maximum copy quantity can be set from 1 to 99. **Note** ❒ Default: Off
Tone: Original on Platen	The key tone sounds when you forgot to remove originals after copying. **Note** ❒ Default: Off ❒ When the “Panel Tone” is set to Off, the beeper does not sound even if the “Original Tone” is set to On.
Front Side Margin Adjust.	You can adjust the front side margin direction and width that is selected as a default in Front Side Margin Adjust. Mode. You can change this setting. • Metric version: left/20 mm - right/20 mm in 1 mm steps. • Inch version: left/0.8” - right/0.8” in 0.1” steps. **Note** ❒ Default: • Metric version: left/right 0mm • Inch version: left/right 0"
Back Side Margin Adjust.	You can adjust the back side margin direction and width that is selected as a default in Back Side Margin Adjust. You can change this setting. • Metric version: left/20 mm - right/20 mm in 1 mm steps. • Inch version: left/0.8” - right/0.8” in 0.1” steps. **Note** ❒ Default: • Metric version: left/right 0mm • Inch version: left/right 0"
1→2 Duplex Auto Margin Adjust.	When you use 1 - Sided → 2 - Sided mode, the machine set the back side margin automatically. **Note** ❒ Default: Off
Magnification Setting	Up to 2 reproduction ratios which you frequently use can be registered. 1. Press the **[Setting]** key. 2. Select the **[User Ratio 1]** or **[User Ratio 2]** key. 3. Enter your desired ratio with the **[Number]** keys. Then press the **[#]** key. 4. Press the **[OK]** key.
Initial Mode Setting	You can set the machine to recall program setting when the machine is turned on or when modes are cleared. **Note** ❒ Default: Normal

Menu	Description
Show Editor Grid (Only for Edit type)	You can turn the grid snap on or off in the display editor. The grids may help you to mark a right angle shape. **Note** ❒ Default: Off
Area Shape Priority	When you designate areas, you can select the first designated shape. 1. Select the **(Rectangle)**, **(R.A.Polygon)**, **(Polygon)**, **(Closed Loop)**, or **(Multi. Closed Loop)** key. **Note** ❒ Default: **(Rectangle)** key
Key Operator Tools Use these tools to manage use of the machine. **Note** ❒ Enter a previously registered key operator code with the **[Number]** keys. **Reference** About the key operator code, see page 157.	
Accessible Modes Setting	You can assign user codes to each color mode. Operators must input their user codes before using each color mode (Full color, Black & White, Single, Twin Color). The machine keeps count of the number of copies made under each user code. 1. Select your desired color mode.
User Codes Setting	**Program** You can register the user codes. 1. Press the **[Program]** key. 2. Enter the user code with the **[Number]** keys. Then press the **[#]** key. 3. Select the color mode from **[Full Color]**, **[Black & White]**, **[Single]**, or **[Twin Color]** key. **Note** ❒ You can up to 50 user codes.
	Change You can change the user codes. 1. Press the **[Change]** key. 2. Select the user code. 3. Enter the user code with the **[Number]** keys. Then press the **[#]** key. 4. Select the color mode from **[Full Color]**, **[Black & White]**, **[Single]**, or **[Twin Color]** key.
	Clear You can clear the user codes. 1. Press the **[Clear]** key. 2. Select the user code that you want to clear. 3. If you want to clear the all user codes of the page, press the **[Select All]** key. **Note** If you want to change the **[Select All]**, press the **[Clr All Select]** key. 4. Press the **[OK]** key. 5. Press the **[Yes]** key.
	Delete All You can delete the all registered user codes. 1. Press the **[Delete All]** key. 2. Press the **[Yes]** key.
Counter Manager	**Counter List Print** You can print data for all user codes. 1. Press the **[Counter List Print]** key. 2. Press the **[Print Start]** key.

Menu	Description
Counter Manager	**Reset Couters** You can check the number of copies made using each user code. Also, you can clear each code's counter. 1. Press the **[Reset Couters]** key. 2. Input the user code you want to check its number of copies with the **Number** keys. 3. Press the **[OK]** key. 4. Press the **[Yes]** key.
	Delete All You can reset the counter for all user codes. 1. Press the **[Delete All]** key. 2. Press the **[Yes]** key.

Image Adjustment

Menu	Description
Background Dens. of A.D.S. (FC/Twin)	The Auto Image Density levels in Full Color mode, Black mode can be made lighter or darker (5 levels). **Note** ❒ Default: level 3
A.C.S. Priority	You can select color images or black & white images that are priority detected in Auto Color Select mode. **Note** ❒ Default: Full Color
Color Sensitivity	When in Color Erase or Color Conversion mode, the function can be made more or less sensitive to the color to be erased or converted. It can be adjusted within 5 levels ("Narrow" to "Wide"). For example, if red is selected as the color to be erased or converted, "Narrow" will result in only red being erased or converted, and "Wide" will result in other colors close to red being erased or converted. **Note** ❒ Default: level 3
Inkjet Output Mode Setting	You can select the type of image adjustment for the Inkjet Output Mode from the below. If you want to emphasis yellow, select 1. If you want to emphasis red and yellow, select 2. If you want to emphasis red and blue, select 3. **Note** ❒ Default: 1

Duplex/ADF/Sorter

Menu	Description
Duplex Tray Auto Clear	When making two-sided copies from one-sided originals, if the last original is an odd page, the last copy will be automatically delivered with the reverse side blank. You can cancel this setting. **Note** ❒ Default: On
SADF Auto Reset Timer	When you set one original at a time in the document feeder, the **Auto Feed** indicator lights for a selected time after an original is fed to show that the document feeder is ready for another original. The time can be set from 1 second to 99 seconds. **Note** ❒ Default: 5 seconds

Menu	Description
ADF Thin paper	Use when changing the type of originals to be fed. Select this function to avoid damaging thin originals (40 - 52g/m^2, 11-14 lb) set in the document feeder. **Note** ❒ Default: Off
ADF Mixed Sizes	By default, you cannot set originals of different sizes at one time in the document feeder. You can cancel this setting. **Note** ❒ Default: Off ❒ If you select **[On]**, the copying speed will be reduced. ❒ When setting different length originals, all originals must be flush with the back fence of the document feeder. ❒ Smaller size originals might be skewed a little.
ADF Auto Paper Select	By default, the Auto Paper Select is selected when you set originals in the document feeder. You can cancel this setting. **Note** ❒ Default: On
Full Color Copy Sorting	You can disable sorting, stacking, or stapling in Full Color mode to maximize quality of full color copies. **Note** ❒ Default: Off
Auto Sort Mode	You can have the machine select Sort mode automatically when you insert two or more originals in the document feeder and make two or more copies from each original. **Note** ❒ Default: On

Special Mode Program(s)

Special Mode for Copying	Use to recall the special modes set by your service representative.

Auto Color Calibration

Copy Mode/Printer Mode	When the tone of a specific color is strong or the color tone of copies is different from that of originals, perform this function. This function adjusts the balance of the 4 basic colors. 1. Press the **[Auto Color Calibration]** key. 2. If your machine has the printer option installed, select copy mode or printer mode. Then press the **[Start]** key. 3. Press the **[Print Start]** key. **Note** ❒ The test pattern is delivered to the copy tray. 4. Set the test pattern on the exposure glass (platen glass). Then press the **[Scan Start]** key. **Limitation** You cannot set the test pattern in the document feeder. **Note** ❒ To return to the previous setting, repeat steps 1 to 3 and press the **[Prev. Setting]** key.

Maintaining Your Machine
Where to Put Your Machine
Do's and Don'ts
Remarks
Use and Storage of Supplies

Maintaining Your Machine

If the exposure glass (platen glass), platen cover or document feeder belt is dirty, you might not be able to make copies as you want. Clean them if you find them dirty.

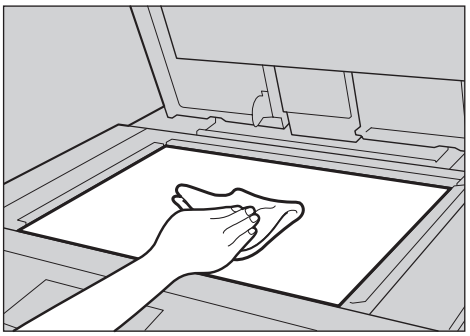
Note

❒ Do not use chemical cleaner or organic solvent, such as thinner or benzene. If they get into the machine or melt plastic parts, a failure might occur.

❒ Do not clean parts other than those specified in this manual. Such parts should be cleaned by your service representative.

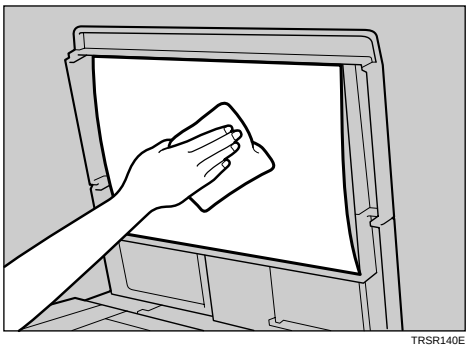
❒ Wipe the machine with a soft, damp cloth. Then wipe it with a dry cloth to remove the water.

Exposure Glass (Platen Glass)



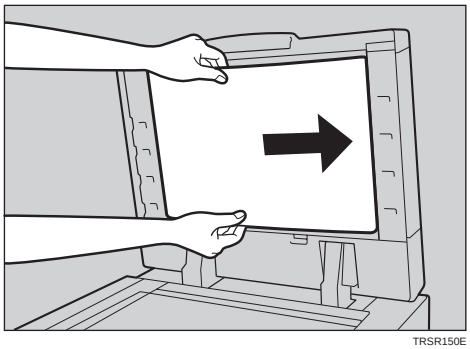
TRSR130E

Platen Cover



TRSR140E

Document Feeder



TRSR150E

Where to Put Your Machine

Machine Environment

Your machine's location should be carefully chosen because environmental conditions greatly affect its performance.

Optimum environmental conditions

⚠ ***CAUTION*:**

• Keep the machine away from humidity and dust. A fire or an electric shock might occur.
• Do not place the machine on an unstable or tilted surface. If it topples over, it cause injury.

⚠ ***CAUTION*:**

• If you use the machine in a confined space, make sure there is a continuous air turnover.

❒ Temperature: 10 – 32°C, (50 – 89.6°F)(humidity to be 54 % at 32°C, 89.6°F)

❒ Humidity: 15 – 80 % (temperature to be 27°C, 80.6°F at 80 %)

❒ A strong and level base.

❒ The machine must be level within 5mm, 0.2" both front to rear and left to right.

❒ To avoid possible built-up ozone, make sure to locate this machine in a large well ventilated room that has an air turnover of more than 30 m^3/hr/person.

Environments to avoid

❒ Locations exposed to direct sunlight or strong light (more than 2,000 lux).

❒ Locations directly exposed to cool air from an air conditioner or heated air from a heater. (Sudden temperature changes might cause condensation within the machine.)

❒ Places where the machine might be subjected to frequent strong vibration.

❒ Dusty areas.

❒ Areas with corrosive gases.

Power Connection

⚠ ***WARNING:***

- ***Only connect the machine to the power source described on the inside front cover of this manual.***

⚠ ***WARNING:***

- ***Avoid multi-wiring.***
- ***Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.***
- ***Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.***

⚠ ***WARNING:***

- ***Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.***

⚠ ***CAUTION:***

- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*

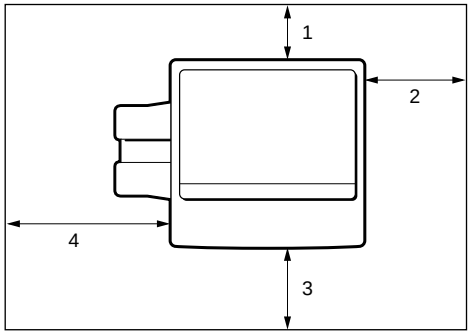
⚠ ***CAUTION:***

- *When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.*

- When the main power switch is in the Stand-by positions, the optional anti-condensation heaters are on. In case of emergency, unplug the machine's power cord.
- When you unplug the power cord, the anti-condensation heaters turn off.
- Make sure the plug is firmly inserted in the outlet.
- Voltage must not fluctuate more than 10%.

Access to Machine

Place the machine near the power source, providing clearance as shown.



1. Rear: more than 10cm, 4.0"
2. Right: more than 37cm, 14.6"
3. Front: more than 70cm, 27.6"
4. Left: more than 40cm, 15.8"

Note

❒ For the required space when options are installed, please contact your service representative.

Do's and Don'ts

⚠ ***CAUTION:***

- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*

- Do not touch areas on or around the fusing unit. These areas get hot.
- After making copies continuously, you might feel the exposure glass is heated. But this is not a malfunction.
- You might feel warm around the ventilation hole. This is caused by exhaust air, and not a malfunction.
- Do not turn off the operation switch while copying. When turning off the operation switch, make sure that copying is completed.
- The machine might fail to produce good copy images if there should occur condensation inside caused by temperature change.
- Do not open the covers of machine while copying. If you do, misfeeds might occur.
- Do not move the machine while copying.
- If you operate the machine improperly or a failure occurs on the machine, your machine settings might be lost. Be sure to take a note of your machine settings.
- Supplier shall not be liable for any loss or damages resulting from a failure on the machine, loss of machine settings, and use of the machine.

Remarks

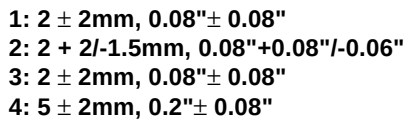
Copier

Be careful not to move the original during the scanning process.

❒ To avoid problems caused by curled copies, try turning over the paper stack in the paper tray. If there is no improvement, change to copy paper with less curl.

❒ Load paper with the copy side down in the paper trays. If copies are curled, try turning the copy paper over in the tray. If there is no improvement, change to copy paper with less curl.

❒ As a default setting, narrow margins on all four sides will not be copied as shown in the illustration.



Use and Storage of Supplies

Copy Paper

❒ Copy paper of the types or in the conditions listed below are not recommended for this copier.

- Folded, curled, creased, or damaged paper
- Torn paper
- Perforated paper
- Paper with conductive or low electrical resistance coating such as carbon or silver coating
- Thermal paper, art paper
- Thin paper that has low stiffness
- Damp paper
- Wavy paper
- Stapled paper
- Translucent paper

❒ Never use ink-jet printer paper to prevent failure.

❒ Use a proper type OHP transparency and set it in correct direction to prevent failure.

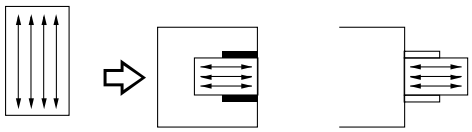
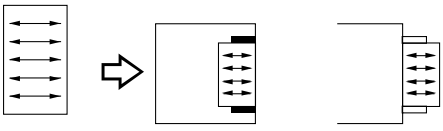
❒ Fan copy paper and OHP transparencies to get air between the sheets before loading.

❒ Do not touch copy paper if your fingers are wet or oily; finger prints may appear on the copy.

❒ Load paper with the copy side down in the paper trays. If copies are curled, try turning the copy paper over in the tray. If there is no improvement, change to copy paper with less curl.

❒ When copying on rough surface paper, the copy image may be light.

❒ When setting paper thinner than 64g/m^2, 17 lb or translucent paper in the paper trays or bypass trays, set it as shown in the figure below. The paper is divided into the vertical and horizontal types depending on the texture flow direction. If you set thin paper or translucent paper in the reverse direction, a paper jam might occur. Since A3, B4, 11" × 17", and 8$_{1/2}$" × 14" sizes of thin paper are set in the lengthwise direction in this machine, they must be of the vertical type.

	Texture flow	Setting paper in the paper trays	Setting paper in the bypass tray
Vertical type	 GCYOSI1E		
Horizontal type	 GCYOSI2E		

Paper Storage

Paper should always be stored properly. Improperly stored paper might result in poor image reproduction, creased copies, and paper misfeeds. Generally, avoid curling and absorption of moisture.

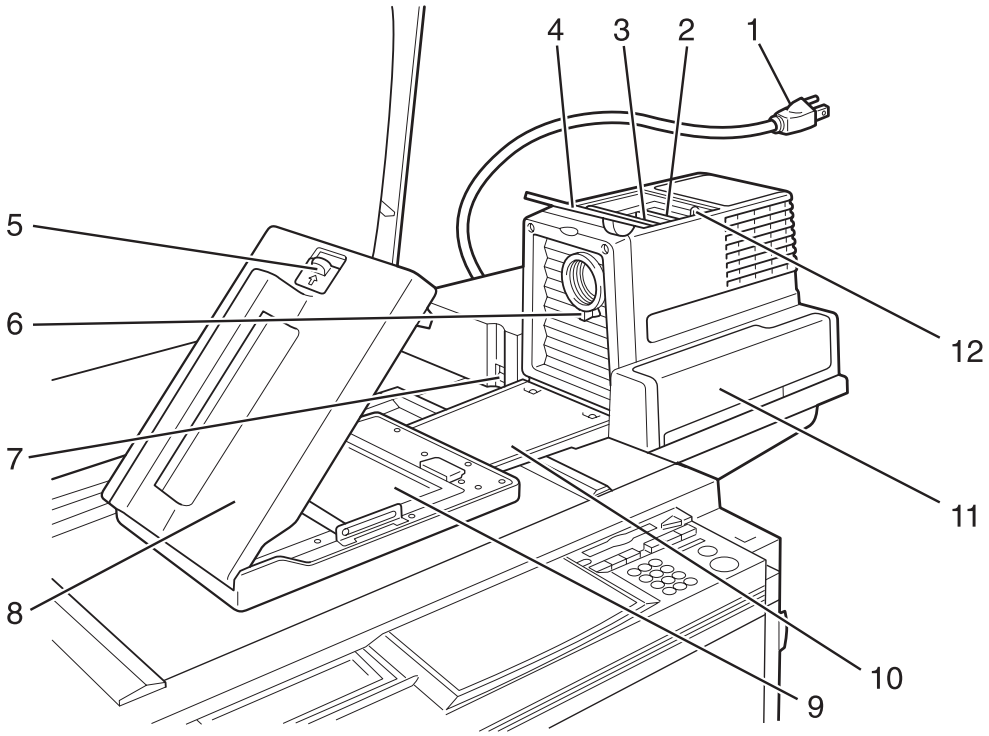
- ❒ Avoid storing paper in humid areas. Under high temperature and high humidity, or low temperature and low humidity conditions, store paper in a vinyl bag.
- ❒ Do not store paper where it will be exposed to heat.
- ❒ Store on a flat surface.
- ❒ Use older stock first.
- ❒ Do not lay heavy objects on paper.
- ❒ Keep open reams of paper in the package, and store as you would unopened paper.

Toner Storage

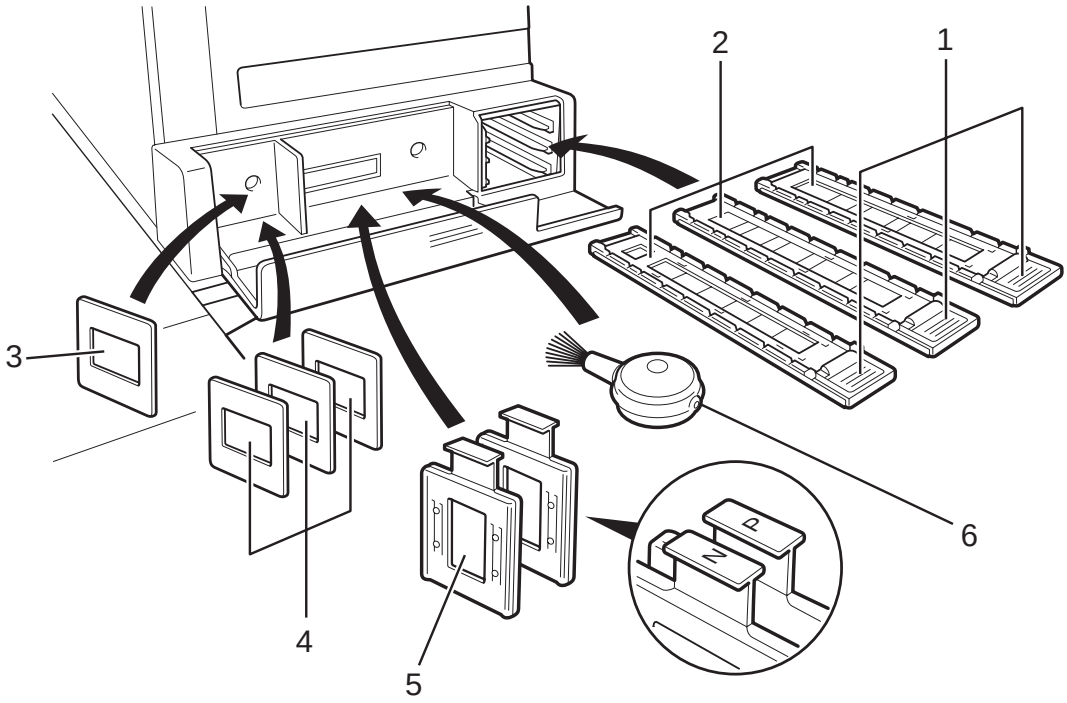
- ❒ Store in a cool, dark place.
- ❒ Never store toner where it will be exposed to heat.
- ❒ Do not lay heavy objects on toner container.

Projector Unit Operation

Guide to Components



1. **Power cord**
   Plug the power cord into a wall outlet.
2. **Holder slot**
   Set the holder here.
3. **Filter slot**
   Insert the P or N filter here.
4. **Film cover**
   To protect the slots from dust, close it when you are not using the projector.
5. **Mirror unit release lever**
   Slide this to the left when opening the mirror unit.
6. **Focusing lever**
   Adjusting the focus with this lever when you make copies from a glass mount film.
7. **Power switch**
   Switches the power on or off.
8. **Mirror unit**
   Reflects the light from the projector to the copier.
9. **Fresnel lens**
   Pull this up when setting film on the exposure glass.
10. **Lens cover**
    To protect the lens from dust, close it when you are not using the projector.
11. **Accessory box**
    Accessories should be stored here.
12. **Holder lever**
    Use to set the holder into the holder slot.



TRSR0B0E

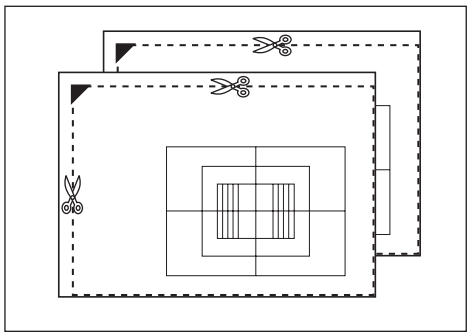
1. **Lock levers**
   Use to fix the film after setting it in the holder.
2. **Film holders**
   Set 35mm film in one of these holders.
   - Slide holder: Set mounted positive films in this holder. (This holder is covered with glass.)
   - Film strip holder: Set negative or positive strip film and base film here.
   - Glass mount film holder: Set the positive glass mount films in this holder. (This holder is covered with glass.)
3. **Slide mount**
   Use to make a base film slide.
4. **Base film slides**
   Use them when performing shading with Nagative film.
5. **Filters (P = Positive, N = Negative)**
   One of them should be set in the filter slot.
6. **Blower brush**
   Use to clean the lens or glass.

Master film position sheet

Make a copy of the master sheet onto type D film and use the copy to position the film correctly on the exposure glass.

Make a copy from the original sheet, cut around the surrounding margin on the dotted lines, and cut away the center part corresponding to the size of the film to be copied.

Keep the master film position sheet.



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Before Operating the Projector

Available Films and Setting

Setting location / Film type / size	Slide film holder	Slide strip holder	Glass mount film Holder	Exposure glass (platen glass)
35mm mount film	○	×	×	×
35mm glass mount film	×	×	○	×
35mm strip film	×	○	×	○
60 × 45mm	×	×	×	○
60 × 60mm	×	×	×	○
60 × 70mm	×	×	×	○
60 × 80mm	×	×	×	○
60 × 90mm	×	×	×	○
4" × 5" (101.6 × 127mm)	×	×	×	○
Maximum size (142 × 210mm, 5.5" × 8.2")	×	×	×	○

Note

❒ Do not use the same film for more than 30 minutes.

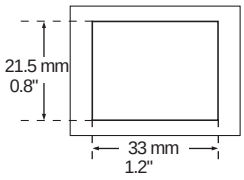
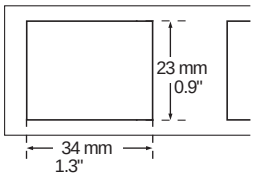
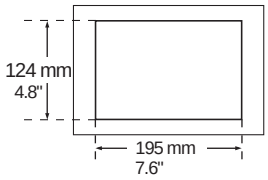
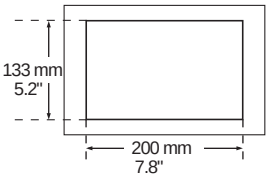
❒ Do not store film in rooms where the temperature is more than 30°C, 86°F.

❒ For valuable images, we recommend copying from duplicates.

❒ When using a film strip, be sure to take it out from the film protection sheet.

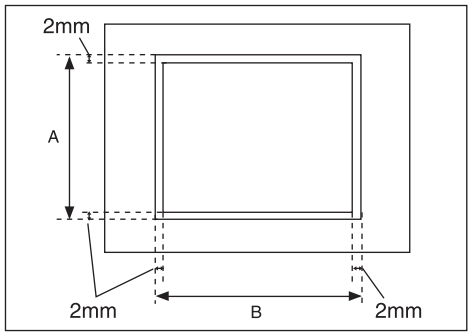
About Copying

When setting mount films and strip films in the film holders

	Mount films (using the slide holder)	Strip films (using the film strip holder)
Area of film that can be copied	 GCFPRE1E	 GCFPRE2E
Copy size (copying full size)	 GCFPRE3E	 GCFPRE4E

When setting wide films with the film position sheets

Narrow margins on all four sides will not be copied as shown in the illustration.



GCFPRJ3E

Film size	A	B
60 × 45mm	61.3mm	48mm
60 × 60mm	61.3mm	64mm
60 × 70mm	61.3mm	77mm
60 × 80mm	61.3mm	84mm
60 × 90mm	61.3mm	93mm
4" × 5"	100mm	125mm
Maximum	142mm	210mm

Notes for Operation

- ❒ First, you must perform shading to get the projector to register the condition of the film. This way, the projector can adjust the light intensity automatically while copying.
- ❒ If you press the **【Clear Modes】** key or **【Cancel】** key while using Projector function, all operations with the Projector will be canceled.
- ❒ You can adjust the color tone and color density manually.
- ❒ This projector has an automatic focus function, but if you use the glass mount film holder, adjust the focus manually.
- ❒ Do not forget to turn off the power switch of the projector when you are not using it.
- ❒ Do not obstruct the light path from the projector. If the light path is obstructed, the image might not match the original.
- ❒ This shading adjustment is very sensitive, so after the shading operation the mirror unit must be left perfectly still. Do not move it or allow vibrations to interfere with it. If this happens during copying, lines might appear on the copy. In that case, you must perform shading again.
- ❒ If you need to open and close the doors (to clear a jam or add toner), we recommend that you perform shading again afterwards.
- ❒ Avoid multi-wiring.

How to Copy from Film

The outline procedure for making copies is given below. Refer to the rest of this section for details of each step.

❶ Position the projector. ☛ see page 179.

❷ Prepare the film. ☛ see page 180.

❸ Select the film type and perform shading. ☛ see page 184.

❹ Adjust color, density, and focus. ☛ see page 192.

❺ Select modes. ☛ see page 195.

❻ Press the **[Start]** key.

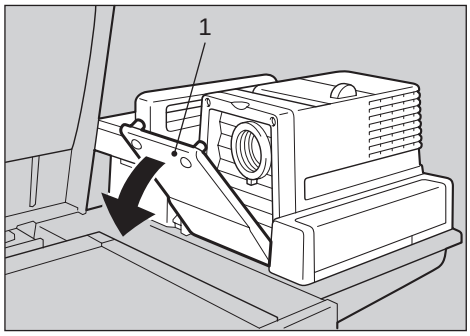
❼ Choose next job. ☛ see page 196.

Positioning the Projector

Note

❒ Do not touch the fresnel lens or the glass on the mirror unit. Fingerprints or dirty parts might appear on the copy. If the fresnel lens becomes dirty, wipe it. ☞ see page 200.

1. Plug the projector into the wall outlet.
2. Turn on the main switch of the projector.
3. Lift the platen cover or the document feeder and lower the projector lens cover.



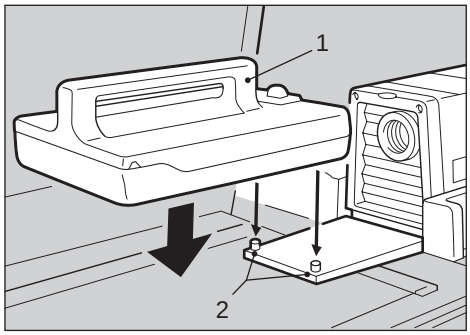
TRSR0C0E

1. Lens cover

4. Place the mirror unit so that the unit's position holes fit over the projector's positioning pins.

Note

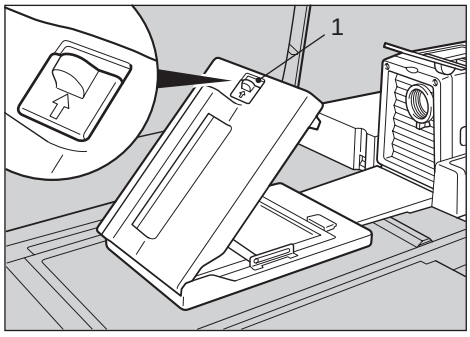
❒ Please be careful not to scratch the exposure glass when setting the mirror unit on it.



TRSR0D0E

1. Mirror unit
2. Positioning pins

5. Slide the mirror unit release lever in the direction of the arrow and open the mirror unit cover.



TRSR0E0E

1. Mirror unit release lever

Preparing the Film

Check this table to find out the key you should use for your film type.

Film Type			Filter	Base Film	Positioning Sheet	Holder	Key To Select
35mm	Positive	Slide (Mount)	**"P"** (Positive Filter)	×	×	Slide Holder	35mm Slides Positive
		Slide (Glass Mount)	**"P"** (Positive Filter)	×	×	Glass Mount Film Holder	35mm Slides Positive
		Strip Film	**"P"** (Positive Filter)	×	×	Film Strip Holder	35mm Slides Positive
	Negative	Strip Film	**"N"** (Negative Filter)	○	×	Film Strip Holder	35mm Strip Negative
Others Max. Size: 142 × 210mm 5.5" × 8.2"	Positive		**"P"** (Positive Filter)	×	○	× (Place on the exposure glass)	Positive Film on glass
	Negative		**"N"** (Negative Filter)	○	○	× (Place on the exposure glass)	Negative Film on glass

Note

❒ When performing shading, you must set a filter that matches that type of film you will copy.

❒ Use an "N" filter for Negative films and a "P" filter for Positive films.

Selecting the Base Film (If Needed)

Note

❒ When you use negative film for copying, use that film's appropriate base film for shading.

1 Confirm the manufacture, model name, and ASA rating of the film you want to use.

2 Select a base film suitable for the film to copy.

Note

❒ The following base film slides have been prepared as accessories.

- For FUJICOLOR (registered trademark of FUJI PHOTO COMPANY LIMITED.)
- For AGFA (registered trademark of AGFAGEVAERT AG.)
- For KODAK (registered trademark of EASTMAN KODAK COMPANY.)

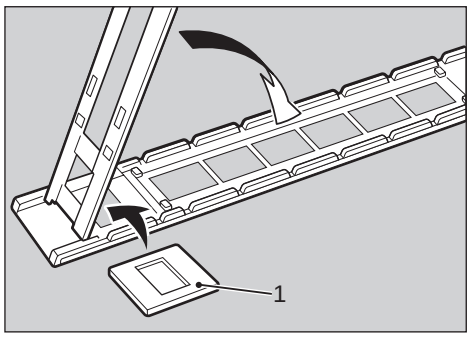
❒ If you use film that does not have suitable base film, you should make the base film yourself. ☛ see page 198.

3 Open the film strip holder and set the base film in the film strip holder.

Note

❒ The base film must be set sideways in the strip holder.

❒ There is no difference between both sides of the base film.



TRSR0H0E

1: Base film

4 Close the holder and lock it as shown in the illustration.

Setting Films in the Holder (If Needed)

Check which type of holder you should use. ☛ see page 180.

Slide Holder/Glass Mount Film Holder

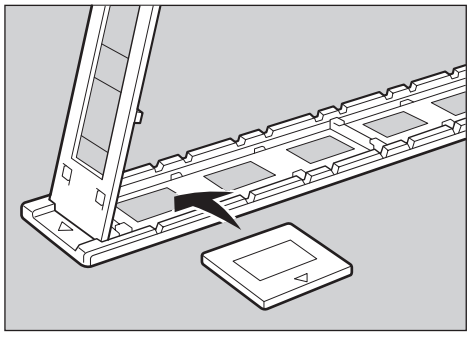
Note

❒ The slide holder is covered with glass. Set the mount films in the slide holder.

❒ The glass mount film holder is not covered with the glass. Set the glass mount films (covered by glass) in the glass mount film holder.

❒ Positive films are usually set in a slide mount or glass mount. If you use positive film not set in a mount, set it in the film strip holder. ☛ see below.

1 Open the cover of the slide holder or glass mount film holder, and set the slides in the holder one by one.



TRSR0L0E

Note

❒ Set the front side of the film face down when setting in the slide holder or glass mount film holder.

❒ When setting in the slide holder, make sure that all slides are aligned with the glass of the slide holder cover.

2 Close the holder and lock it.

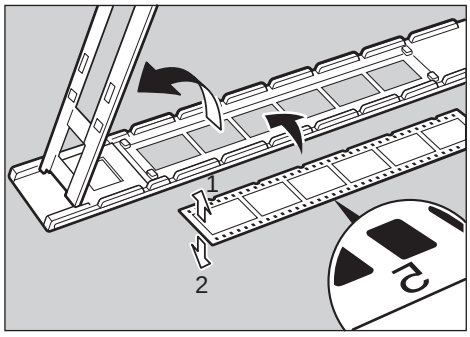
Film Strip Holder

Note

❒ Negative film usually come in stripes.

❒ Follow this procedure for positive strip film as well.

1 Open the film strip holder. Put the front side of the film face down and set it in the film strip holder.



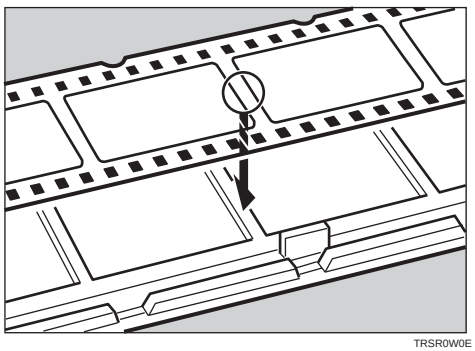
TRSR0K0E

1: Back
2: Front

Note

❒ When setting film, leave the base film in the film strip holder. This is convenient when performing shading again.

2 Adjust the position of the film.



TRSR0W0E

Note

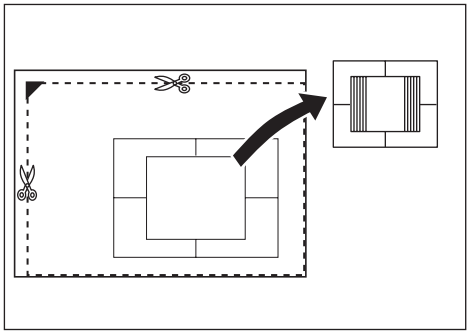
❒ Do not touch the image parts of the film when adjusting.

3 Close the film strip holder and lock it .

Cutting the Film Position Sheet (If Needed)

If you do not use the holders and position the film on the exposure glass, a positioning sheet is required.

Make a copy of one of the positioning sheet originals and use it to make your own sheet. Cut a hole the size of the film from the center of the copy, then crop the sheet by cutting around the dotted lines.



GCPSTN1E

Selecting the Film Type and Performing Shading

The procedures are different depending on the type of film.

1 Press the **[Special Accessory]** Key.

2 Select the film type.

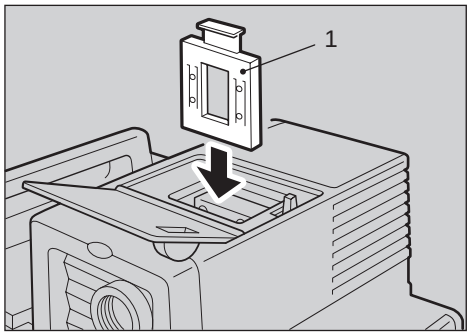
3 Follow the shading procedure appropriate to your film type — see below.

Film Type			Key To Select	Go to page…
35mm	Positive	Slide (Mount)	[35 mm Slides Positive]	Page 185
		Slide (Glass Mount)	[35 mm Slides Positive]	Page 185
		Strip Film	[35 mm Slides Positive]	Page 185
	Negative	Strip Film	[35 mm Strip Negative]	Page 188
Others Max. Size	Positive		[Positive Film on glass]	Page 186
	Negative		[Negative Film on glass]	Page 190

35mm Slides Positive

1 Press the **[Shading]** key.

2 Open the film cover and insert the **"P"** (Positive) filter firmly in the left slot as shown in the illustration.



TRSR0F0E

1: Filter

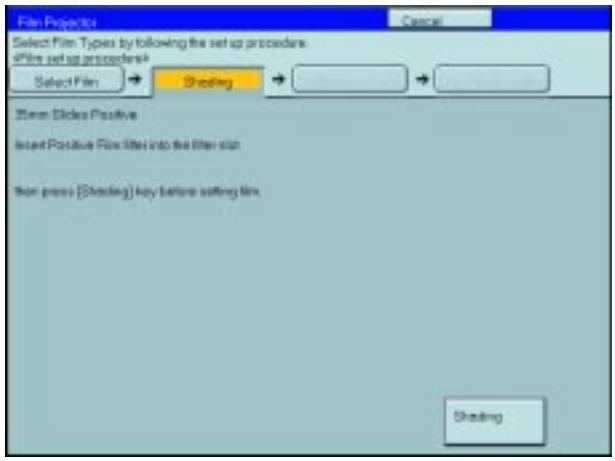
Note

❒ Be careful to insert the filter as shown, not the other way around.

❒ Before going to the next step, make sure that fresnel lens is lowered in position.

3 Press the **[Shading]** key.

❒ The machine will start shading automatically.

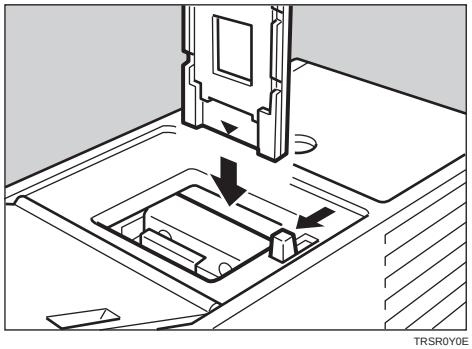


4 Set the film (slide or strip) in the holder.

Reference

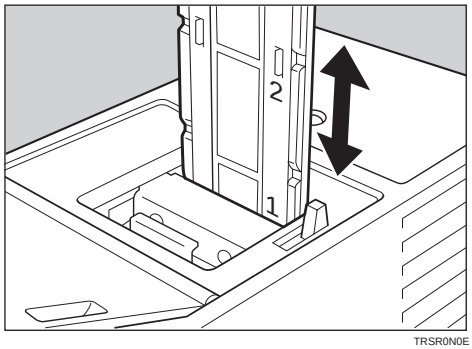
Regarding setting the film, ☛ see page 182.

5 While pressing the holder lever to the left, insert the holder in the right slot.



TRSR0Y0E

6 Adjust the holder by sliding it up and down to position the correct frame for copying.



TRSR0N0E

7 If needed, adjust the color, density, or focus.

Reference

For details, ☛ see page 192.

8 If needed, select the copier modes.

Reference

For details, ☛ see page 195.

9 Press the **[Start]** key.

10 Choose your next job.

Reference

For details, ☛ see page 196.

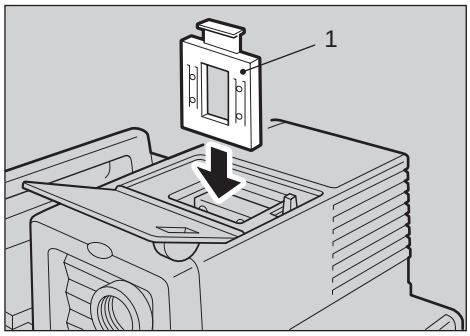
Positive Film on Glass

1 Press the **[Shading]** key.

2 Insert the **"P"** (Positive filter) in the left slot as shown in the illustration.

Note

❒ Be careful to insert the filter as shown, not the other way around.



TRSR0F0E

1: Filter

3 Cut the positioning sheet to match the film size.

Reference

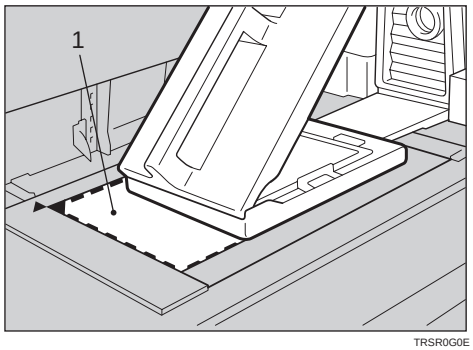
Regarding the positioning sheet, ☛ see page 183.

4 Place the positioning sheet under the mirror unit (on the exposure glass).

Note

❒ Place the marked corner of the film position sheet at the rear left corner of the exposure glass.

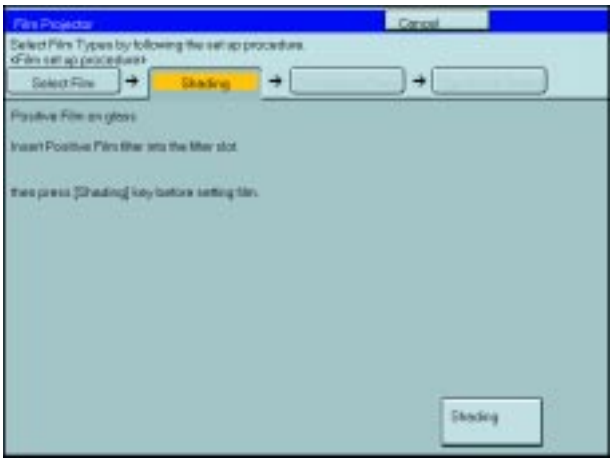
❒ Before going to the next step, make sure that the fresnel lens is lowered in position.



TRSR0G0E

1: Positioning sheet

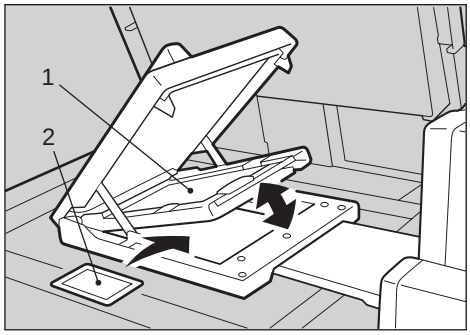
5 Press the **[Shading]** key.



Note

❒ The machine will start shading automatically.

6 Lift the fresnel lens, place the film inside the film position sheet, and lower the fresnel lens.



TRSR0P0E

1. Fresnel lens
2. Film

Note

❒ Place the film face down.

❒ If the film is curled, the copy image might be out of focus. In this case, make the cutout film position sheet a little smaller than the film size and use it to hold the film down.

7 If needed, adjust the color, density, or focus.

Reference

For details, ☛ see page 192.

8 If needed, select the copier modes.

Reference

For details, ☛ see page 195.

9 Press the **[Start]** key.

10 Choose your next job.

Reference

For details, ☛ see page 196.

35mm Strip Negative

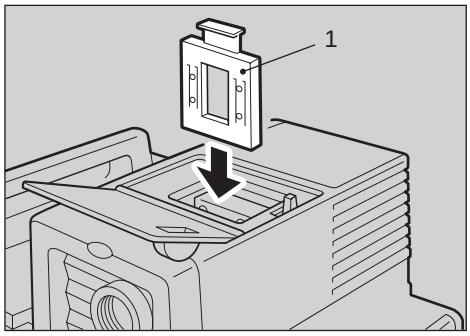
1 Press the **[Shading]** key.

2 Insert the **"N"** (Negative) filter in the left slot as shown in the illustration.

Note

❒ Be careful to insert the filter as shown, not the other way around.

❒ Before going to the next step, make sure that the fresnel lens is lowered in position.



TRSR0F0E

1: Filter

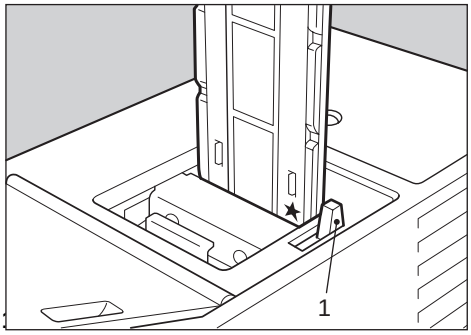
3 Set the base film in the holder.

Reference

Regarding setting the base film, ☞ see page 181.

4 Open the film cover and while pressing the holder lever to the left, insert film strip holder the right slot.

5 Insert the holder until the ★ mark is placed as shown in the illustration.



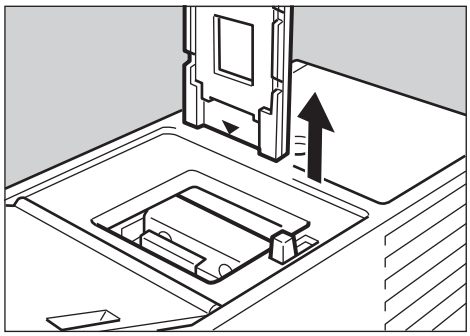
TRSR0J0E

6 Press the **[Shading]** key.

Note

❒ The machine will start shading automatically.

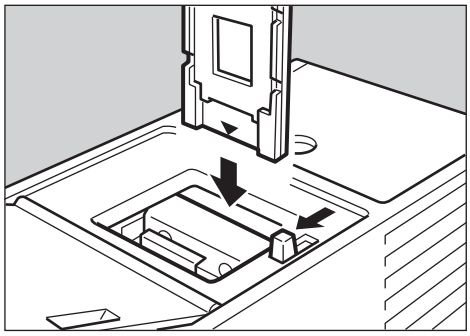
7 Pull out the film strip holder with the base film.


TRSR0Z0E

8 Set the film in the holder.

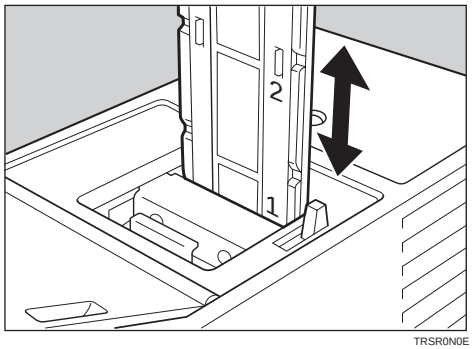
Reference

Regarding setting the film, ☛ see page 182.


TRSR0Y0E

9 While pressing the holder lever to the left, insert the holder in the right slot.

10 Adjust the holder by sliding it up and down to position the correct frame for copying.



TRSR0N0E

11 If needed, adjust the color, density, or focus.

Reference

For details, ☛ see page 192.

12 If needed, select the copier modes.

Reference

For details, ☛ see page 195.

13 Press the **[Start]** key.

14 Choose your next job.

Reference

For details, ☛ see page 196.

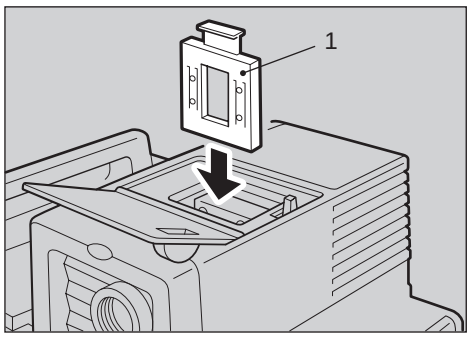
Negative Film on Glass

1 Press the **[Shading]** key.

2 Insert the **"N"** (Negative) filter in the left slot as shown in the illustration.

Note

❒ Be careful to insert the filter as shown, not the other way around.



TRSR0F0E

1: Filter

3 Cut the positioning sheet to match the film size.

Reference

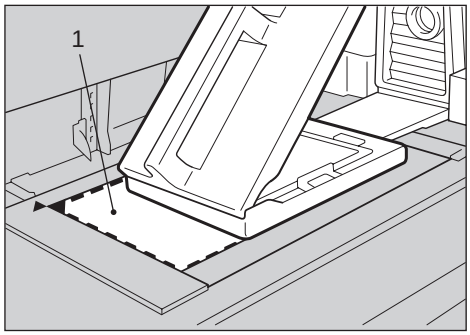
Regarding the positioning sheet, ☛ see page 183.

4 Place the positioning sheet under the mirror unit (on the exposure glass).

Note

❒ Place the marked corner of the film position sheet at the rear left corner of the exposure glass.

❒ Before going to the next step, make sure that the fresnel lens is lowered in position.



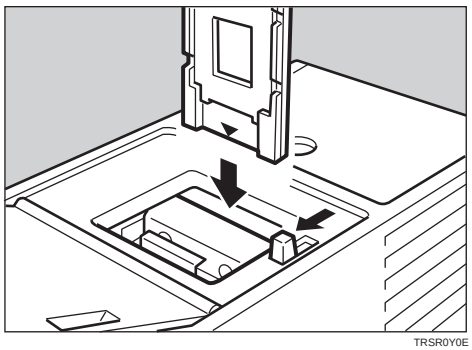
TRSR0G0E

1. Positioning sheet

5 Set the base film in the film strip holder.

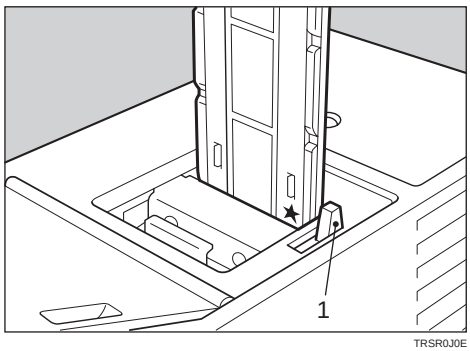
❒ Regarding setting the base film, ☛ see page 181.

6 Open the film cover and while pressing the holder lever to the left, insert the film strip holder in the right slot.



TRSR0Y0E

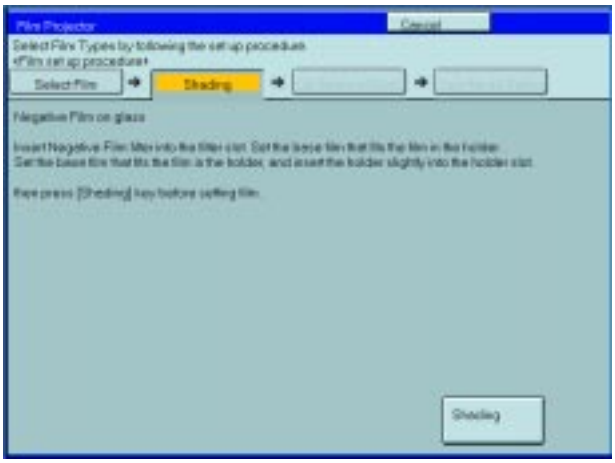
7 Insert the holder until the ★ mark is placed as shown in the illustration.



TRSR0J0E

1: Holder lever

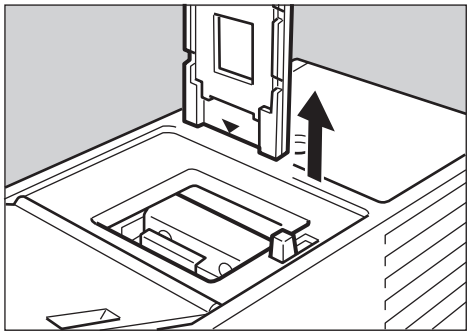
8 Press the **[Shading]** key.



Note

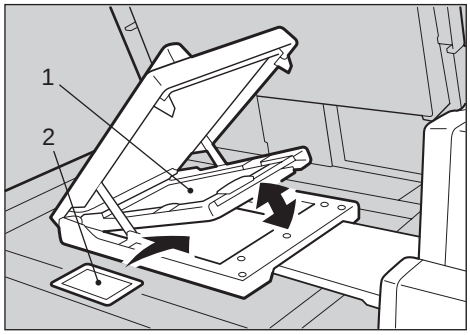
❒ The machine will start shading.

9 Pull out the film strip holder with the base film.



TRSR0Z0E

10 Lift the fresnel lens, place the film inside the positioning sheet, and lower the fresnel lens.



TRSR0P0E

1: Fresnel lens
2: Film

Note

❒ Place the film face down.

❒ If the film is curled, the copy image may be out of focus. In this case, make the cut out film position sheet a little smaller than the film size and use it to hold the film down.

11 If needed, adjust the color, density, or focus.

Reference

For details, ☛ see page 192.

12 If needed, select the copier modes.

Reference

For details, ☛ see page 195.

13 Press the **[Start]** key.

14 Choose your next job.

Reference

For details, ☛ see page 196.

Adjusting Color, Density, and Focus

After shading, you can adjust the color tone, image density, or manual focusing.

Note

❒ When setting the glass mount film holder, manual focus adjustment is required.

❒ You can adjust the focus manually for 35mm film only.

Color Tones in Film Scanning

Use these modes when you want to adjust the overall color tone of copies. Also use these modes when you use negative film, because the color tone of copies varies with the film brand. You can adjust the tone of copies by adjusting Cyan, Magenta, and Yellow (three basic colors).

Notes on color tone adjustments

❒ If the color balance differs slightly from your image, you can also change the tones with the Color Adjustment (☛ see page 193) or Color Balance Adjustment (☛ see page 92) function.

❒ If dark parts are too black, change the U.C.R. Adjustment to level 3 (default = level 5). ☛ see page 96.

Density Adjustment

❒ Density can be set not only with this display, but also with Image Density Adjustment. However, when adjusting for the projector, we recommend you adjust the image density with this display.

Adjusting the Color Tone/Brightness Using Negative Film

❒ When you copy negative film, adjust the color tone (density of yellow, magenta, and cyan) and brightness (quantity of light) according to the table below. However, even when you use the same type of film, you must use different settings depending on the way the original picture is taken or developed. If you cannot make copies as you want, perform adjustment.

❒ You can also use the “Color Balance Adjustment” function of the copier to correct slight color difference.

☛ see page 92.

♦ The following table uses these values to indicate the color tone and brightness levels (the crosshatched values ( ) are the default settings):

Yellow (Y)	Lighter	← 1 2 3 4 5 6 7 8 9	→ Darker
Magenta (M)	Lighter	← 1 2 3 4 5 6 7 8 9	→ Darker
Cyan (C)	Lighter	← 1 2 3 4 5 6 7 8 9	→ Darker
Density	Lighter	← 1 2 3 4 5 6 7 8 9	→ Darker

Manufacturer		FUJI COLOR						Kodak					
Film type		SUPER G ACE *3			SUPER V *4	SUPER G *5	REALA ACE *6	GOLD *7			ROYAL GOLD *8		GOLD *9
ISO sensitivity		100	400	800	100	200	800	100	200	400	100	400	800
Color	Y	5	5	5	4	3	5	4	5	5	5	5	5
	M	5	5	5	5	5	6	7	7	6	7	5	6
	C	5	5	5	3	3	5	6	6	5	6	5	5
Density *1		6	4	5	6	5	4	5	4	5	5	5	5
Density *2		5	3	4	5	4	3	4	3	4	4	4	4

Manufacturer		Konica					AGFA		
Film type		LV *10		COLOR JX *11			COLOR HDC *12		
ISO sensitivity		100	200	100	200M	400	100	200	400
Color	Y	3	3	4	5	5	4	6	8
	M	6	5	7	4	5	5	6	5
	C	5	4	5	4	3	5	5	2
Density *1		5	5	6	5	5	5	4	5
Density *2		4	4	5	4	4	4	3	4

- Density *1 should be used when film is set in the film holder.
- Density *2 should be used when film is set on the exposure glass (platen glass).

*3, *4, *5, *6: These products are registered trademarks of Fuji Photo Film Co., Ltd.
*7, *8, *9: These products are registered trademarks of Kodak Ltd.
*10, *11: These products are registered trademarks of Konica Corporation.
*12: This product is a registered trademark of Agfa Gevaert AG.

1 If you want to adjust the color tone or image density, select **[Col. Balance/Dens.]** key.

2 Select the level (1 - 9).

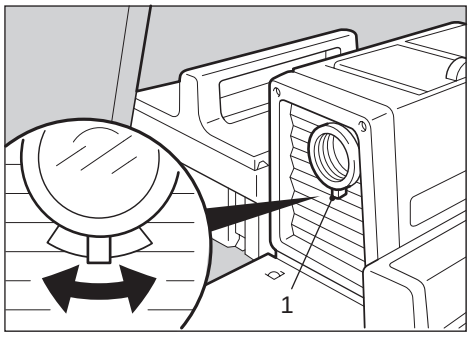
3 If your film type is 35mm and you want to adjust focus manually, press the **[Manual Focus]** key.

4 Place a blank piece of white paper under the mirror unit.

5 Adjust the focus with the focusing lever, then press the **[OK]** key.

Note

❒ After copying, return the focusing lever to the center.



TRSR0Q0E

1: Focusing lever

Selecting Modes

You can select copier modes with the projector.

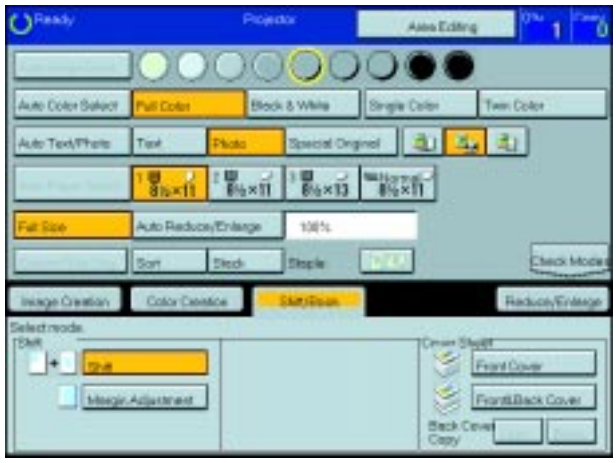
❒ Regarding the modes that cannot be selected with the projector, ☛ see page 88.

1 After shading, press the **[Copy Mode Setting]** key.

2 Select the modes.

Note

❒ This operation is the same as that described in the "Copying" chapter.



3 Press the **[Start]** key.

Choosing Next Job

After copying, you can select the next job:

[Select Film]

If you want to change the type of film, press this key.

[Shading]

If the mirror unit is moved, or if some lines appear on the copy, press this key and perform shading again.

[Color Balance/Density]

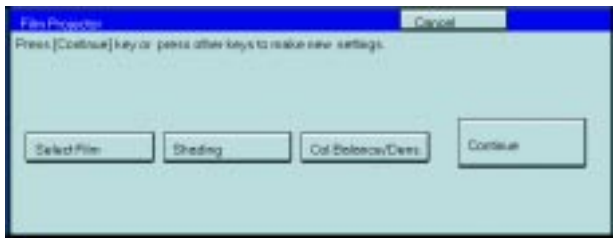
If you want to adjust the color tone, image density, or adjust the focus manually, press this key.

[Continue]

If you want to copy the same film again, or if you want to copy another film which is of the same type, press this key.

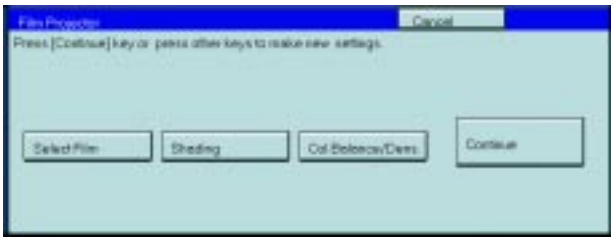
1 Press the **[Special Accessory]** key.

2 Select the key.



Exiting Projector Mode

1 Press the **[Cancel]** key.



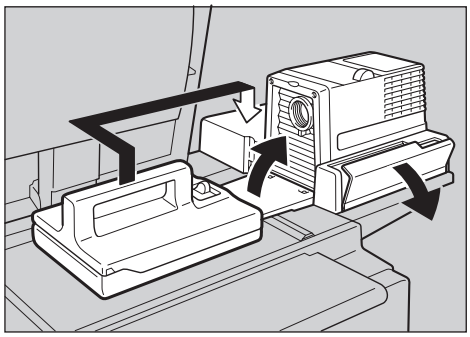
2 Replace the mirror unit to its original position.

Note

❒ Be careful not to touch the fresnel lens. If you do touch it, clean it. ☛ see page 200.

3 Return the holders, filters, and other accessories to the accessory box.

4 Close the lens cover.



TRSR0R0E

5 Turn off the power switch.

Note

❒ Though the power switch is turned off, the cooling fan may be still working. Therefore, please wait a few moments before unplugging the power cord.

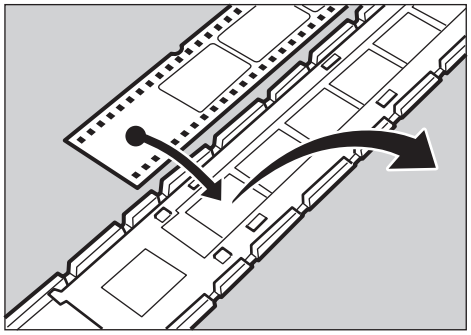
What to do If Something Goes Wrong

1. If the color balance is not right

❒ If the color density leans to red or blue, or isn't properly balanced, perform the color density adjustment, and the color balance adjustments for Yellow, Magenta, and Cyan. ☛ see page 92.

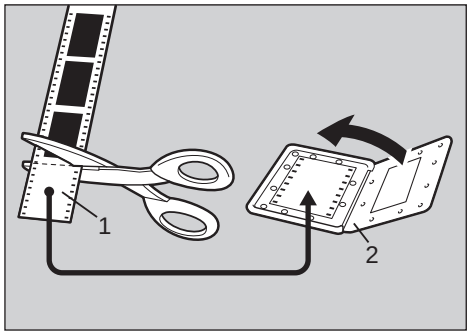
2. If the film you want to copy does not match the types of base film included.

❒ If you do not plan on copying from this type of film often, use an unexposed frame of the same film strip, if available, when performing shading.



TRSR1A0E

❒ If you plan on copying from this type of film often, make a base slide using an unexposed, developed frame of the film.



TRSR0S0E

1: Unexposed part
2: Mount

❒ If you have no blank unexposed frame of the same type of film, you can use an unexposed frame from film produced by the same company, but the colors might differ a bit.

3. If the copy image is out of focus.

❒ Check if the image on the film is focused or not. If it is, make sure the film is correctly set in the holder.

❒ If you reset the film correctly in the holder and the image is still out of focus, or if you use a different image, and the copy image is out of focus in every case, please call your service representative.

❒ You can adjust the focus manually with the focusing lever. ☛ see page 192.

4. If the edge of the original image does not appear on the copy.

❒ Check the size of the area that can be copied. ☛ see page 176.

❒ When setting film in the holder, be sure to position the desired frame properly.

❒ To extend the area that can be copied, use the glass mount film holder and focus manually.

5. If the projection lamp does not light.

❒ If the projection lamp does not light and a service message appears on the screen, the lamp might be burned out. In this case, please call you service representative.

6. If you move the mirror unit.

❒ Perform the shading operation once again.

7. If lines appear on the copy.

❒ Perform the shading operation again.

❒ Some possible causes are:

1. A long time has passed since shading.
2. Many copies were made since shading and the mirror unit has moved due to copier operation.
3. Someone might have leaned on the machine or put something on it.

❒ If copying from negative film, thin black lines might-appear on the lighter part of the copy, even after shading.

8. Black lines appear on the edge.

❒ These lines are shadows caused by the film holder and cannot be eliminated.

9. If a ring pattern appears on the copy.

❒ The ring pattern is present on the film itself, and the machine is sensitive enough to pick it up. Try to change the film setting direction. Adjusting the focusing lever so that the image is slightly out of focus will eliminate most of the pattern.

❒ Also, try the following:

- Open and close the film cover.
- Slide the film in the holder a bit.
- Turn the film around in the holder. (Do not flip it over.)

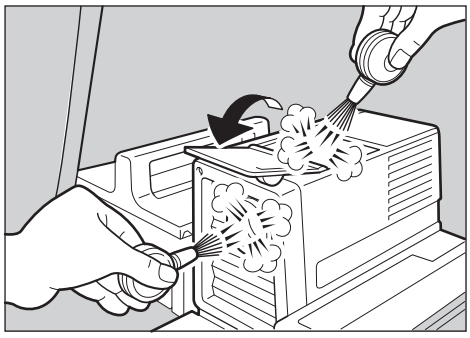
Daily Maintenance

Exterior

Wipe with a dry soft cloth.

Lens

Blow off any dust using the blower brush. If there are fingerprints on the lens, wipe them with a soft cloth.



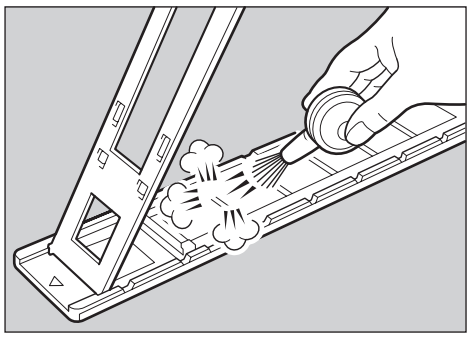
TRSR0T0E

Film Holder

Blow off any dust using the blower brush. If there are fingerprints on the glass, wipe with a soft cloth.

Holder Slot

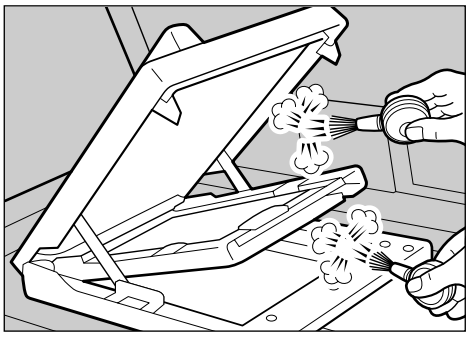
Blow off any dust using the blower brush.



TRSR0U0E

Mirror Unit

Blow off any dust using the blower brush. If there are fingerprints on the glass, wipe with a soft cloth.



TRSR0V0E

Specifications

Mainframe

Configuration: Desktop

Process: Dry electrostatic transfer system

Resolution: 400 dpi

Gradations: 256 gradations

Originals: Sheet, book, objects

Original size: Maximum: A3, 11" × 17"

Copy paper size: Trays: A3□, B4□, A4□□, B5□□, A5□, 11" × 17"□, 8 1/2" × 14"□, 8 1/2" × 13"□, 8 1/2" × 11"□□, 5 1/2" × 8 1/2"□
Bypass Tray: ☛ see page 44.

Copy paper weight: Trays: 64 - 105g/m², 17 - 28 lb
Bypass Tray: 52 - 160g/m², 14 - 43 lb
Auto Duplex Tray: 64 - 105g/m², 17 - 28 lb
(When you use paper heavier than 104.7g/m², 28 lb, use the bypass feed table and select Thick mode.)

Copy paper capacity: Tray: 500 sheets
Bypass Tray: 50 sheets

Copying speed (Full size):

Full color (4 colors):

	Standard mode	OHP/Thick mode
A4□, 8 1/2" × 11"□	6 copies/minute	3 copies/minute
A3□, 11" × 17"□	3 copies/minute	1.5 copies/minute

Black, Yellow, Magenta, Cyan:

	Standard mode	OHP/Thick mode
A4□, 8 1/2" × 11"□	28 copies/minute	5 copies/minute
A3□, 11" × 17"□	14 copies/minute	2.5 copies/minute

Blue (Magenta + Cyan), Green (Yellow + Cyan):

	Standard mode	OHP/Thick mode
A4□, 8 1/2" × 11"□	9 copies/minute	4 copies/minute
A3□, 11" × 17"□	4.5 copies/minute	2 copies/minute

Red (Yellow + Magenta):

	Standard mode	OHP/Thick mode
A4□, 8 1/2" × 11"□	7 copies/minute	3.5 copies/minute
A3□, 11" × 17"□	3.5 copies/minute	1.5 copies/minute

Black + Yellow, Black + Magenta, Black + Cyan:

	Standard mode	OHP/Thick mode
A4□, 8 1/2" × 11"□	7 copies/minute	3.5 copies/minute
A3□, 11" × 17"□	3.5 copies/minute	1.5 copies/minute

First copy time:

	Standard mode	OHP/Thick mode
Full color (4 colors)	22.4 seconds or less	35 seconds or less
Black, Yellow, Magenta, Cyan	8 seconds or less	23 seconds or less
Blue (Magenta + Cyan) Green (Yellow + Cyan)	16 seconds or less	27 seconds or less
Red (Yellow + Magenta)	16 seconds or less	27 seconds or less
Black + Yellow Black + Magenta Black + Cyan	16 seconds or less	27 seconds or less

Non-reproduction area: Leading edge: 5±2mm, 0.2" ±0.08"
Trailing edge: 2+2/ - 1.5mm, 0.08" +0.08"/–0.06"
Side: 2±2mm, 0.08" ±0.08" (Total 4mm, 0.16" or less)

Toner replenishment: Cartridge (220g/cartridge)

Warm-up time: About 7 minutes (20°C, 68°F)

Reproduction ratios: 5 enlargement and 7 reduction

	Metric version	Inch version
Enlargement	400%	400%
	200%	200%
	141%	155%
	122%	129%
	115%	121%
Full size	100%	100%
Reduction	93%	93%
	82%	85%
	75%	78%
	71%	73%
	65%	65%
	50%	50%
	25%	25%

Power consumption:

	Copier only	Full system*
Warm up	1.3kW	1.3kW
Stand-by	0.4kW	0.4kW
Copying	1.1kW	1.3kW
Maximum	less than 1.5kW	less than 1.5kW

* Full system: Mainframe with the document feeder, 3-bin sorter stapler and 1500-sheet tray. Optional printer installed.

Noise Emission (ISO 7779 Sound Power Level):

Based on actual measurement

	Mainframe only	Complete System
When printing	less than 68 dB (A)	less than 72 dB (A)
Stand-by	less than 55 dB (A)	less than 59 dB (A)

Dimensions (W×D×H up to the exposure glass):

620 × 757 × 602mm, 24.5" × 29.9" × 23.8"

Weight: Approx. 105kg, 231.5 lb

❒ Specifications are subject to change without notice.

Document Feeder (Option)

Original Feed: Automatic reverse document feed - ARDF mode

Automatic document feed - ADF mode

Semi-automatic document feed - SADF mode

Original size: A3 ▭ - B6▯▭ (B6▯▭ cannot be used in ARDF mode)

11" × 17"▭ - 5 1/2" × 8 1/2"▯▭

Original weight:

SADF mode, ADF mode:	40 - 128g/m², 11 - 34 lb
ARDF mode:	52 - 105g/m², 14 - 28 lb
Combine Originals mode:	52 - 128g/m², 14 - 34 lb

(For 40 - 52g/m², 11 - 14 lb originals, use ADF Thin Paper mode. B6▭ cannot be used in ARDF Thin Paper mode.)

Maximum number of originals to be set: 50 sheets (80g/m², 20 lb)

Original set: Face up, First sheet on top

Original transport: One flat belt

Maximum power consumption: 45W (Power is supplied from the main frame.)

Weight: Less than 10.5kg, 23.2 lb

Dimensions: (W X D X H) 610 × 507 × 130mm, 24.1" × 20.0" × 5.2"

❒ Specifications are subject to change without notice.

20-bin Sorter Stapler (Option)

Number of bins: 20 bins + proof tray

Paper size for bins (Normal paper mode): Sort/Stack:

A3□, B4□, A4▯□, B5▯□, 11" × 17"□, 10" × 14"□, 8 1/2" × 14"□, 8 1/2" × 13"□, 8 1/2" × 11"▯□, 12" × 18"□

Staple:

A3□, B4□, A4▯□, B5▯□, 11" × 17"□, 10" × 14"□, 8 1/2" × 14"□, 8 1/2" × 13"□, 8 1/2" × 11"▯□

Paper weight for bins: 52g/m^2 - 160g/m^2, 14 - 43 lb

Bin capacity (Normal paper mode):

Sort:	A4, 8 1/2" × 11" or smaller:	30 sheets (80g/m^2, 20 lb)
	B4, 8 1/2" × 14" or larger:	25 sheets (80g/m^2, 20 lb)
Stack:	A4, 8 1/2" × 11" or smaller:	25 sheets (80g/m^2, 20 lb)
	B4, 8 1/2" × 14" or larger:	20 sheets (80g/m^2, 20 lb)

Stapler capacity (Normal paper mode): 2 - 30 sheets (80g/m^2, 20 lb)

Proof tray capacity: 100 sheets (80g/m^2, 20 lb)

Maximum power consumption: 35W (Power is supplied from the main frame.)

Weight: 23kg, 50.6 lb

Dimensions: (W × D × H) 430 × 570 × 680mm, 17.0" × 22.5" × 26.8"

❒ Specifications are subject to change without notice.

10-bin Sorter Stapler (Option)

Number of bins:	10 bins + proof tray
Paper size for bins:	Sort/Stack: A3□, B4□, A4□□, B5□□, 11" × 17"□, 10" × 14"□, 8 1/2" × 14"□, 8 1/2" × 13"□, 8 1/2" × 11"□□ Staple: A3□, B4□, A4□□, B5□□, 11" × 17"□, 10" × 14"□, 8 1/2" × 14"□, 8 1/2" × 13"□, 8 1/2" × 11"□□
Paper weight for bins:	52g/m² - 160g/m², 14 - 42 lb
Bin capacity:	Sort: A4, 8 1/2" × 11" or smaller: 30 sheets (80g/m², 20 lb) B4, 8 1/2" × 14" or larger: 25 sheets (80g/m², 20 lb) Stack: A4, 8 1/2" × 11" or smaller: 25 sheets (80g/m², 20 lb) B4, 8 1/2" × 14" or larger: 20 sheets (80g/m², 20 lb)
Stapler capacity:	2 - 20 sheets (80g/m², 20 lb)
Proof tray capacity:	100 sheets (80g/m², 20 lb)
Maximum power consumption:	33W (Power is supplied from the main frame.)
Weight:	12.4kg, 27.4 lb
Dimensions: (W × D × H)	381 × 548 × 443mm, 15.0" × 21.6" × 17.5"

❒ Specifications are subject to change without notice.

3-bin Sorter (Option)

Number of bins: 3 bins

Paper size for bins: A3□, B4□, A4□□, B5□□, A5□□, B6□, A6□, 11" × 17"□, 10" × 14"□, 8 1/2" × 14"□, 8 1/2" × 13"□, 8 1/4" × 13"□, 8 1/2" × 11"□□, 5 1/2" × 8 1/2"□, 12" × 18"□

Paper weight for bins: Face-up: 1st bin: 52 - 160g/m², 14 - 42 lb

2nd and 3rd bins: 52 - 105g/m², 14 - 28 lb

Face-down: 64 - 105g/m², 17 - 28 lb

Bin capacity (Normal paper mode): 1st bin: A4, 8 1/2" × 11" or smaller: 500 sheets (80g/m², 20 lb)

B4, 8 1/2" × 13" or larger: 250 sheets (80g/m², 20 lb)

2nd and 3rd bins:

A4, 8 1/2" × 11" or smaller: 250 sheets (80g/m², 20 lb)

B4, 8 1/2" × 13" or larger: 125 sheets (80g/m², 20 lb)

Maximum power consumption: 30W (Power is supplied from the main frame.)

Weight: Less than 14kg, 30.9 lb

Dimensions: (W × D × H) 361 × 483 × 427mm, 14.3" × 19.1" × 16.9"

❒ Specifications are subject to change without notice.

1000-sheet T ray Unit (Option)

Copy paper weight: 64 - 105g/m², 17 - 28 lb

Available paper size: A3□, B4□, A4□□, B5□□, A5□, 11" × 17"□, 8 1/2" × 14"□, 8 1/2" × 11"□□, 5 1/2" × 8 1/2"□

Maximum power consumption: 50W (Power is supplied from the main frame.)

Paper capacity: 500 sheets × 2 trays

Dimensions: (W × D × H) 620 × 680 × 390mm, 24.5" × 26.8" × 15.4"

Weight: Approx. 32kg, 70.6 lb

❒ Specifications are subject to change without notice.

1500-sheet T ray Unit (Option)

Copy paper weight: 64 - 105g/m², 17 - 28 lb

Available paper size: A3□, B4□, A4□□, B5□□, A5□, 11" × 17"□, 8 1/2" × 14"□, 8 1/2" × 11"□□, 5 1/2" × 8 1/2"□

Maximum power consumption: 50W (Power is supplied from the main frame.)

Paper capacity: 500 sheets × 3 trays

Dimensions: (W × D × H) 620 × 680 × 390mm, 24.5" × 26.8" × 15.4"

Weight: Approx. 37kg, 81.6 lb

❒ Specifications are subject to change without notice.

Projector Unit (Option)

Acceptable film types:	Type:	Positive film, Negative film
	Size:	35mm
	Others:	60 × 45mm, 60 × 60mm, 60 × 70mm,
		60 × 80mm, 60 × 90mm, 4" × 5"
	Max:	142 × 210mm, 5.5" × 8.2"
	Mount:	Yes (Up to 5 frames can be set in a film holder.)
	Strip:	Yes (A series of 6 frames can be set in a film holder.)
Focusing:	Fixed/Manual	
Maximum power consumption:	70W	
Weight:	Projector:	7.9kg, 17.5 lb
	Mirror unit:	2.7kg, 6.0 lb
Dimensions : (W × D × H)	Projector:	300 × 442 × 212mm, 11.9" × 17.5" × 8.4"
	Mirror unit:	298 × 232 × 50mm, 11.8" × 9.2" × 2.0"
Remarks:	The holder is required for installation.	

❒ Specifications are subject to change without notice.

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